

Before the
Federal Communications Commission
Washington, D.C. 20554

2001 SEP 21 P 2: 58
2001 SEP 21 P 2: 58

In the Matter of)

Application of Verizon Pennsylvania Inc.,)

Verizon Long Distance, Verizon Enterprise)

Solutions, Verizon Global Networks Inc., and)

Verizon Select Services Inc. for Authorization)

To Provide In-Region, InterLATA Services in)

Pennsylvania)

CC Docket No. 01-138 /

RECEIVED
RECEIVED

MEMORANDUM OPINION AND ORDER

Adopted: September 19, 2001

Released: September 19, 2001

By the Commission: Commissioner Copps dissenting and issuing a statement.

TABLE OF CONTENTS

	Paragraph
I. INTRODUCTION.....	1
II. BACKGROUND	4
III. CHECKLIST COMPLIANCE.....	9
A. PRIMARY ISSUES IN DISPUTE	9
1. Checklist Item 2 – Unbundled Network Elements	11
2. Checklist Item 4 – Unbundled Local Loops	76
3. Checklist Item 14 – Resale	93
B. OTHER ITEMS	99
1. Checklist Item 1 – Interconnection	99
2. Checklist Item 5 – Unbundled Transport.....	109
3. Checklist Item 8 – White Pages Directory Listings.....	114
C. CHECKLIST ITEM 13 – RECIPROCAL COMPENSATION.....	118
D. REMAINING CHECKLIST ITEMS (3, 6, 7, AND 9-12)	120
IV. COMPLIANCE WITH SECTION 271(C)(1)(A).....	121
V. SECTION 272 COMPLIANCE.....	124
VI. PUBLIC INTEREST ANALYSIS.....	125
A. ASSURANCE OF FUTURE COMPLIANCE	127

B. OTHER PUBLIC INTEREST ISSUES	133
VII. SECTION 271(d)(6) ENFORCEMENT AUTHORITY.....	135
VIII. CONCLUSION	139
IX. ORDERING CLAUSES.....	140
APPENDIX A – LIST OF COMMENTERS	
APPENDIX B – PENNSYLVANIA PERFORMANCE DATA	
APPENDIX C – STATUTORY REQUIREMENTS	

I. INTRODUCTION

1. On June 21, 2001, Verizon Pennsylvania Inc., Verizon Long Distance, Verizon Enterprise Solutions, Verizon Global Networks Inc., and Verizon Select Services Inc. (Verizon) filed this application pursuant to section 271 of the Communications Act of 1934, as amended,¹ for authority to provide in-region, interLATA service originating in the state of Pennsylvania. We grant the application in this Order based on our conclusion that Verizon has taken the statutorily required steps to open its local exchange markets in Pennsylvania to competition.

2. According to Verizon, competing carriers in Pennsylvania serve approximately one million lines, one-third of which are residential, using all three entry paths available under the Act.² Across the state, competitors serve more than 600,000 lines solely over their own facilities; more than 385,000 lines through unbundled network elements; and more than 160,000 lines through resale. In addition, Verizon asserts that competitors exchange approximately two billion minutes of traffic each month with Verizon over local interconnection facilities that are more than three-fourths the size of Verizon's own local interoffice network. Verizon also states that competitors have access to more than 90 percent of Verizon's access lines in Pennsylvania through approximately 2,000 collocation arrangements.³

3. In granting this application, we recognize the hard work of the Pennsylvania Public Utility Commission (Pennsylvania Commission) in laying the foundation for approval of this application. The Pennsylvania Commission conducted extensive proceedings concerning Verizon's section 271 compliance, which were open to participation by all interested parties. In addition, the Pennsylvania Commission adopted a broad range of performance measures and standards as well as a Performance Assurance Plan (PAP) designed to create a financial incentive

¹ We refer to the Communications Act of 1934, as amended, as the Communications Act or the Act.

² Verizon Application at 1.

³ *Id.* at 2.

for post-entry compliance with section 271.⁴ Moreover, the Pennsylvania Commission will continue its oversight of Verizon's performance through ongoing state proceedings.⁵ As the Commission has recognized, state proceedings demonstrating a commitment to advancing the pro-competitive purposes of the Act serve a vitally important role in the section 271 process.⁶

II. BACKGROUND

4. In the 1996 amendments to the Communications Act, Congress required that the Bell Operating Companies (BOCs) demonstrate compliance with certain market-opening requirements contained in section 271 of the Act before providing in-region, interLATA long distance service.⁷ Congress provided for Commission review of BOC applications to provide such service in consultation with the affected state and the Attorney General.⁸

5. On January 8, 2001, Verizon filed a preliminary application for section 271 approval with the Pennsylvania Commission (the Compliance Filing).⁹ A majority of the Pennsylvania Commission conditionally approved Verizon's Compliance Filing on June 6, 2001.¹⁰ Specifically, the Pennsylvania Commission found that Verizon demonstrated compliance with the statutory requirements of section 271 in most respects, but that further action would be

⁴ See Pennsylvania Commission Comments at 1-4.

⁵ See Pennsylvania Commission Reply at 6-10.

⁶ See, e.g., *Application of Verizon New York Inc., Verizon Long Distance, Verizon Enterprise Solutions, Verizon Global Networks Inc. and Verizon Select Services, Inc. for Authorization to Provide In-Region, InterLATA Services in Connecticut*, CC Docket 01-100, Memorandum Opinion and Order, 16 FCC Rcd 14147, 14149, para. 3 (2001) (*Verizon Connecticut Order*); *Application of Verizon New England Inc., Bell Atlantic Communications, Inc. (d/b/a Verizon Long Distance), NYNEX Long Distance Company (d/b/a Verizon Enterprise Solutions) And Verizon Global Networks Inc., for Authorization to Provide In-Region, InterLATA Services in Massachusetts*, CC Docket 01-9, Memorandum Opinion and Order, 16 FCC Rcd 8988, 8990, at para. 2 (*Verizon Massachusetts Order*).

⁷ The Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (1996).

⁸ The Commission has summarized the relevant statutory framework in prior orders. See, e.g., *Joint Application by SBC Communications Inc., Southwestern Bell Tel. Co., and Southwestern Bell Communications Services, Inc., d/b/a Southwestern Bell Long Distance for Provision of In-Region, InterLATA Services in Kansas and Oklahoma*, Memorandum Opinion and Order, 16 FCC Rcd 6237, 6241-42, paras. 7-10 (2001) (*SWBT Kansas/Oklahoma Order*); *Application by SBC Communications Inc., Southwestern Bell Tel. Co., and Southwestern Bell Communications Services, Inc. d/b/a Southwestern Bell Long Distance Pursuant to Section 271 of the Telecommunications Act of 1996 To Provide In-Region, InterLATA Services in Texas*, Memorandum Opinion and Order, 15 FCC Rcd 18354, 18359-61, paras. 8-11 (2000) (*SWBT Texas Order*); *Application by Bell Atlantic New York for Authorization Under Section 271 of the Communications Act to Provide In-Region, InterLATA Service in the State of New York*, Memorandum Opinion and Order, 15 FCC Rcd 3953, 3961-63, paras. 17-20 (1999) (*Bell Atlantic New York Order*), *aff'd*, *AT&T Corp. v. FCC*, 220 F.3d 607 (D.C. Cir. 2000).

⁹ Thirty-six parties participated in the Pennsylvania Commission proceeding, with 17 parties filing final comments or briefs on Verizon's Compliance Filing. See Pennsylvania Commission Comments at 14-16.

¹⁰ Dissenting statements were issued by Commissioners Nora Mead Brownell and Terrance J. Fitzpatrick. *Id.* at 16.

necessary to demonstrate that the local exchange and access markets in Pennsylvania were fully and irreversibly open to competition.¹¹ Verizon filed a letter with the Pennsylvania Commission on June 7, 2001 accepting the terms of the June 6, 2001 conditional approval.¹² Verizon thereafter filed its application for section 271 authority in Pennsylvania with this Commission on June 21, 2001.¹³ Comments concerning the instant application were filed on July 11, 2001, and reply comments were filed on August 6, 2001.¹⁴ The Pennsylvania Commission filed both comments and a reply in this proceeding, supporting Verizon's application in both instances.¹⁵

6. The Department of Justice does not oppose Verizon's section 271 application for Pennsylvania, but states that it is unable fully to endorse it due to concerns about Verizon's wholesale billing systems.¹⁶ The Department of Justice also states, however, that local markets in Pennsylvania show a substantial amount of competitive entry, and does not foreclose the possibility that this Commission may be able to approve Verizon's application.¹⁷ The evaluation explains that, due to the timing of the application, "Verizon has not been able to demonstrate that its billing system modifications have fully resolved its billing problems in actual commercial operations."¹⁸ The Department of Justice recognizes that the Commission may gather additional information on this issue during the pendency of this proceeding, and "may therefore be able to assure itself that Verizon's billing problems have been resolved."¹⁹ As discussed below, in reviewing this application, we do consider additional information regarding Verizon's billing

¹¹ The conditional approval of Verizon's application (1) required Verizon to withdraw an appeal challenging the Pennsylvania Commission's authority to impose self-executing remedies; (2) established voluntary, self-executing remedies of \$25,000 for certain metrics missed beyond ninety days; and (3) imposed a rebuttable presumption that features of the New York remedies plan (e.g., weighting of metrics, liability cap, etc.) should be adopted and made applicable in Pennsylvania. There is an ongoing proceeding concerning the Pennsylvania PAP, which is expected to be completed in December. *Id.*; Pennsylvania Commission Reply at 8.

¹² Pennsylvania Commission Comments at 17.

¹³ On June 21, 2001, the Commission released a Public Notice establishing a schedule for filings in this proceeding, and addressing certain other procedural matters. *See Comments Requested on The Application By Verizon Pennsylvania, Inc. for Authorization Under Section 271 of the Communications Act To Provide In-Region, InterLATA Service in The State of Pennsylvania*, Public Notice, DA 01-1486 (CCB rel. June 21, 2001).

¹⁴ A complete list of commenters in this proceeding is contained in Appendix A.

¹⁵ *See* Pennsylvania Commission Comments at 1-4; Pennsylvania Commission Reply at 1.

¹⁶ Department of Justice Evaluation at 3. Specifically, the Department of Justice states that "Verizon filed its Pennsylvania application with the FCC without sufficient evidence to show that numerous problems with its wholesale billing systems have been corrected" and that "insufficient time has elapsed to determine whether Verizon's proposed fixes to its billing problems will be effective." *Id.*

¹⁷ *Id.* at 2-3.

¹⁸ *Id.* at 17.

¹⁹ *Id.* at 17-18.

performance that was not available to the Department of Justice at the time it prepared its evaluation.

7. In reviewing this application, which was filed on June 21, 2001, we examine performance data as reported in carrier-to-carrier reports reflecting service in the period from February through June 2001. We examine Verizon's June performance data for the purpose of confirming acceptable performance or a trend of improvement shown in earlier months' data. We also examine data reflecting Verizon's June billing performance to verify that the billing system fixes implemented by Verizon in June were effective. Although as a general rule we do not rely on factual evidence that post-dates the application in assessing checklist compliance,²⁰ the Commission has previously considered performance that covered a time period slightly beyond the comment filing date,²¹ and we believe it is appropriate to do so here. Verizon's application was submitted a few days after Verizon implemented changes to its billing process to address problems with electronic bills. Neither the June carrier-to-carrier performance data nor the data reflecting Verizon's June billing performance, however, could be generated until the end of the calendar month. We believe it is reasonable, therefore, to consider both Verizon's June carrier-to-carrier and billing data and do not believe that any party to this proceeding is prejudiced by such consideration.

8. We also note that the Act does not require Verizon to make a showing of checklist compliance with respect to the former GTE operating company it acquired in Pennsylvania in order to obtain section 271 authorization for this state.²² Section 271(c) establishes the checklist requirements that a BOC must meet in order to provide in-region interLATA services.²³ Section 271(c) applies only to BOCs themselves, and not to BOC affiliates.²⁴ The Act defines "Bell

²⁰ See, e.g., *SWBT Texas Order*, 15 FCC Rcd at 18371-72, para. 38; *Bell Atlantic New York Order*, 15 FCC Rcd at 3969, para. 37. We disagree with Z-Tel that analyzing June data in this application would be inconsistent with our procedural rules governing section 271 applications. See Z-Tel Reply at 2-4. The Commission has held that an "applicant may submit new evidence after filing solely to rebut arguments made or facts submitted by other commenters," provided that the new evidence covers "only the period placed in dispute by commenters." See *Updated Filing Requirements for Bell Operating Company Applications Under Section 271 of the Communications Act*, Public Notice, DA 01-734 at 4 (CCB rel. Mar. 23, 2001) (citations omitted) (Mar. 23 Section 271 Procedural Notice). Here, the evidence we rely on was submitted by Verizon to rebut competitors' assertions and pertains only to the May and June billing cycles. To the extent that Verizon has submitted information concerning subsequent billing cycles, we do not rely on that information as a basis for granting the application. However, information about subsequent billing cycles does provide additional confirmation of Verizon's satisfaction of its obligations under section 271(c).

²¹ *SWBT Texas Order*, 15 FCC Rcd at 18372, paras. 39-40.

²² See *Application of GTE Corp., Transferor, and Bell Atlantic Corp., Transferee, For Consent to Transfer Control*, Memorandum Opinion and Order, 15 FCC Rcd 14032 (2000) (*GTE/Bell Atlantic Merger Order*).

²³ 47 U.S.C. § 271(c).

²⁴ See, e.g., 47 U.S.C. § 271(c)(2)(B) ("[a]ccess or interconnection provided or generally offered by a Bell operating company to other telecommunications carriers meets the requirements of this subparagraph if such access and interconnection includes each of the following . . . [setting forth the checklist requirements].").

operating company” to include 20 companies specifically named in the statute, and “any successor or assign of such company that provides wireline telephone exchange service,” but expressly excludes “an affiliate of such company” other than one of the specifically named companies or their successors or assigns.²⁵ Although the former GTE operating company became an affiliate of Verizon as a result of the parent company merger, it is neither a BOC nor a successor or assign of Verizon. Thus, we find that Verizon is not required to show checklist compliance for GTE North, the former GTE LEC, to receive section 271 authorization for the state of Pennsylvania.

III. CHECKLIST COMPLIANCE

A. Primary Issues In Dispute

9. In a number of prior orders, the Commission discussed in considerable detail the analytical framework and particular legal showing required to establish checklist compliance.²⁶ In this Order, we rely upon the legal and analytical precedent established in those prior orders. Additionally, as in the *Verizon Connecticut Order*, we include comprehensive appendices containing performance data and the statutory framework for approving section 271 applications.²⁷

10. As in our most recent orders on section 271 applications, we focus in this Order on the issues in controversy in the record.²⁸ Accordingly, we begin by addressing checklist item numbers 2, 4, and 14, which encompass access to unbundled network elements, access to unbundled local loops, and resale of Verizon’s service offerings, respectively. Next, we address checklist item numbers 1, 5, 8, and 13, which cover interconnection and collocation issues, access to unbundled transport, directory listings, and reciprocal compensation, respectively. The remaining checklist requirements are then discussed briefly, as they received little or no attention from commenting parties, and our own review of the record leads us to conclude that Verizon has satisfied these requirements. We then consider whether Verizon has satisfied the requirements for Track A in Pennsylvania. Finally, we discuss issues concerning compliance with section 272 and the public interest requirement.

1. Checklist Item 2 – Unbundled Network Elements

11. Checklist item 2 of section 271 states that a BOC must provide “[n]ondiscriminatory access to network elements in accordance with the requirements of sections

²⁵ 47 U.S.C. § 153(4).

²⁶ See *SWBT Texas Order*, 15 FCC Rcd at 18359-61, 18365-72, 18373-78, paras. 8-11, 21-40, and 43-58; *Bell Atlantic New York Order*, 15 FCC Rcd at 3961-63, 3966-69, 3971-76, paras. 17-20, 29-37, and 43-60; see also Appendix C.

²⁷ See generally Appendices B and C.

²⁸ See *Verizon Connecticut Order*, 16 FCC Rcd at 14151-52, para. 9; *Verizon Massachusetts Order*, 16 FCC Rcd at 8996, para. 15; *SWBT Kansas/Oklahoma Order* 16 FCC Rcd at 6255-56, para. 39.

251(c)(3) and 252(d)(1)” of the Act.²⁹ Based on the record, we agree with the conclusions of the Pennsylvania Commission and find that Verizon has satisfied the requirements of checklist item 2.³⁰ In this section, we address those aspects of this checklist item that raised significant issues concerning whether Verizon’s performance demonstrated compliance with the Act: (1) Operations Support Systems (OSS), particularly billing; (2) UNE pricing; and (3) provisioning of UNE combinations.

a. OSS

12. Under checklist item 2, a BOC must demonstrate that it provides non-discriminatory access to the five OSS functions: (1) pre-ordering; (2) ordering; (3) provisioning; (4) maintenance and repair; and (5) billing.³¹ In addition, a BOC must show that it has an adequate change management process in place to accommodate changes made to its systems.³² We find that Verizon provides non-discriminatory access to its OSS. Consistent with prior Commission orders, we do not address each OSS element in detail where our review of the record satisfies us there is little or no dispute that Verizon meets the nondiscrimination requirements.³³ Rather, we focus our discussion on those issues in controversy, which, in this instance, primarily involve certain elements of Verizon’s billing systems. We also specifically address issues related to loop qualification and flow-through.

(i) Billing

13. In previous section 271 decisions, the Commission has held that, pursuant to checklist item 2, BOCs must provide competitive LECs with two essential billing functions: (i) complete, accurate and timely reports on the service usage of competing carriers’ customers and (ii) complete, accurate and timely wholesale bills.³⁴ Service-usage reports and wholesale bills are issued by incumbent LECs to competitive LECs for two different purposes. Service-usage reports generally are issued to competitive LECs that purchase unbundled switching and measure the types and amounts of incumbent LEC services that a competitive LEC’s end-users use for a limited period of time, usually one day. In contrast, wholesale bills are issued by incumbent LECs to competitive LECs to collect compensation for the wholesale inputs, such as unbundled

²⁹ 47 U.S.C. § 271(c)(2)(B)(ii).

³⁰ See Pennsylvania Commission Comments at 49-104.

³¹ *Bell Atlantic New York Order*, 15 FCC Rcd at 3989, para. 82. The Commission has defined OSS as the various systems, databases, and personnel used by incumbent LECs to provide service to their customers. See *SWBT Texas Order*, 15 FCC Rcd at 18396-97, para. 92; *Bell Atlantic New York Order*, 15 FCC Rcd at 3989-90, para. 83; *Application of BellSouth Corporation, et al., Pursuant to Section 271 of the Communications Act of 1934, as amended, to Provide In-Region, InterLATA Services in South Carolina*, CC Docket No. 97-208, Memorandum Opinion and Order, 13 FCC Rcd 539, 585, para. 82 (*BellSouth South Carolina Order*).

³² See *Bell Atlantic New York Order*, 15 FCC Rcd at 3999, para. 102 and n.277 (citations omitted).

³³ See *Verizon Connecticut Order*, 16 FCC Rcd at 14151, para. 8.

³⁴ See Appendix C at para. 40 (citations omitted).

elements, used by competitive LECs to provide service to their end users. Generally, wholesale bills are issued on a monthly basis.³⁵ Service-usage reports are essential because they allow competitors to track and bill the types and amounts of services their customers use.³⁶ Wholesale bills are essential because competitive LECs must monitor the costs they incur in providing services to their customers.³⁷ We discuss both elements of billing below.

(a) Service Usage

14. Consistent with prior section 271 orders, a BOC must demonstrate that it provides competing carriers with complete, accurate and timely reports on the service usage of their customers in substantially the same time and manner that a BOC provides such information to itself.³⁸ We find that Verizon provides timely and accurate service usage data to competitive LECs. Specifically, Verizon provides competitive LECs with a cumulative record of their customers' usage called the Daily Usage File (DUF).³⁹ Competitive LECs then are able to reconcile Verizon's DUF with their own usage records to ensure Verizon only charges them for their customers' usage.⁴⁰ If the Verizon DUF and the competitive LEC's internal usage records adequately match, the competitive LEC may use the DUF as one means of calculating its own end-user bills by multiplying its customers' total daily usage against the rates it charges end users for service.⁴¹ Verizon generally delivers the DUF to competitive LECs in a timely and accurate

³⁵ Although the process of calculating a bill is complex due to multiple service offerings, variable rates and usage-sensitive charges, an incumbent LEC essentially calculates the wholesale bill by multiplying the types and amounts of services the competitive LEC uses by the rates established for those services.

³⁶ See, e.g., *Bell Atlantic New York Order*, 15 FCC Rcd at 4075, para. 226.

³⁷ See, e.g., *SWBT Kansas/Oklahoma Order*, 16 FCC Rcd 6237, 6316-17, para. 163; Department of Justice Evaluation at 11-14 (inaccurate bills prevent competitive LECs from "determining whether Verizon is charging them correctly for services they have ordered," increase competitive LECs' "costs of doing business in Pennsylvania," and "impedes not only efficient provisioning of new services, but also the raising of capital"); Pennsylvania Commission Comments at 102 ("Verizon PA needs to issue timely, accurate, auditable bills . . . to give its [competitive] LEC customers a meaningful and realistic opportunity to accurately assess their operational costs.").

³⁸ See, e.g., *SWBT Kansas/Oklahoma Order*, 16 FCC Rcd at 6316-17, para. 163; *SWBT Texas Order*, 15 FCC Rcd at 18461, para. 210; *Bell Atlantic New York Order*, 15 FCC Rcd at 4075, para. 226.

³⁹ Verizon Reply App. A, Vol. 1, Tab B, Joint Reply Declaration of Kathleen McLean, Raymond Wierzbicki, and Catherine T. Webster (Operations Support Systems) at para. 8 (Verizon McLean/Wierzbicki/Webster Reply Decl.).

⁴⁰ *Id.* at para. 10. Reconciling a usage file or billing account is the process of checking one file against another to ensure that the file is accurate and complete. *Id.*

⁴¹ *Id.* Multiplying the usage on the DUF by the competitive LEC's stated rates is not the only means of calculating a competitive LEC's end-user bills. A competitive LEC might use other, equally legitimate methods to develop end-user bills, such as charging its customers a retail rate that is some percentage higher than the wholesale bill, or using other sources to ensure accuracy. See, e.g., Letter from Jonathan D. Lee, Vice President for Regulatory Affairs, CompTel, to Magalie R. Salas, Secretary, Federal Communications Commission, CC Docket No. 01-138, at 8 (filed Sept. 7, 2001) (CompTel Sept. 7 *Ex Parte* Letter) (asserting that because usage records and billing completion letter notices are inaccurate, "MetTel finds that it must have an accurate wholesale bill so that it (continued....)

manner.⁴² Few competitive LECs dispute that Verizon consistently provides accurate and timely DUF information to its wholesale customers.⁴³ Finally, an independent, third-party test that KPMG performed for the Pennsylvania Commission provides additional assurance that Verizon's DUF is delivered in a timely and accurate manner.⁴⁴ Based on the evidence in the record, we conclude that Verizon provides its competitors with non-discriminatory access to service usage data.

(b) Wholesale Bills

15. Consistent with prior section 271 orders, a BOC must demonstrate that it provides competing carriers with wholesale bills in a manner that gives competing carriers a meaningful opportunity to compete.⁴⁵ In this case, despite some historical problems in producing a readable, auditable and accurate wholesale bill, we find that Verizon now provides a wholesale bill that gives competitive LECs a meaningful opportunity to compete.⁴⁶ Although as an evidentiary matter this finding is a close call, we believe that Verizon ultimately satisfies its evidentiary burden for wholesale billing and, in combination with its strong DUF performance, complies with the OSS billing requirements under checklist item 2.

16. We begin our analysis with an overview of Verizon's wholesale billing systems and summarize the various steps Verizon has taken to provide a BOS BDT wholesale bill. Next, we describe the commercial performance of Verizon's wholesale billing systems. We then

(Continued from previous page)

can have a third method for determining proper end-user charges."'). Thus, contrary to Verizon's suggestion, the provision of an accurate and timely DUF does not necessarily mean that competing carriers can collect revenues from their end users. *See, e.g., Verizon Reply at 7.*

⁴² *See, e.g., BI-1-02 (Percentage DUF in 4 Business Days) (all months but May score of 89.74 percent are better than the standard of 95 percent of DUF within 4 business days); BI-4-01 (Percentage Usage Accuracy) (every month shows 100 percent DUF accuracy against a standard of 95 percent).* The dip in May DUF timeliness performance reflects Verizon's retention of certain DUF files while Verizon worked to correct an error that directed usage to the wrong competitive LEC accounts. *See Verizon McLean/Wierzbicki/Webster Reply Decl. at para. 12.* As of the end of May, the existing accounts had been corrected and Verizon released the corrected information to competitive LECs on a slightly delayed basis. In June, the DUF Timeliness metric again surpassed 95 percent. *Id.*

⁴³ Verizon Reply at 7. A few commenters claim to have received inaccurate usage information in the past: *see Capsule Joint Comments at 17, CompTel Comments at 15-17 (alleging that Verizon's DUFs are often inaccurate, unreliable or unavailable).* Verizon identified errors on the DUF and implemented a series of fixes in March, April and May to respond to these problems. *Verizon McLean/Wierzbicki/Webster Decl. at para. 130; Verizon Application App. A, Vol. 2, Joint Declaration of Kathleen McLean, Raymond Wierzbicki, and Catherine T. Webster (Operations Support Systems) at para. 12 (Verizon McLean/Wierzbicki/Webster Decl.).* Although CompTel also raises claims of inaccurate usage files, these claims appear more directly related to billing completion notice errors than errors with usage files. *CompTel Sept. 7 Ex Parte Letter at 7; see infra at paras. 43-44.*

⁴⁴ *See Verizon Application App. B, Tab F, Sub-Tab 2 (December 22, 2000 Final Report for Verizon Pennsylvania Inc. OSS Evaluation Project, KPMG Consulting, at 517-532 (KPMG Final Report)).*

⁴⁵ Appendix C at para. 39.

⁴⁶ *Id.*

analyze the results of third-party reviews of Verizon's billing systems. We also discuss the sufficiency of the evidence presented to demonstrate that Verizon provides complete, accurate and timely wholesale bills. Finally, we discuss various measures that Verizon has undertaken to ensure that Verizon's wholesale billing practices will not deteriorate in the future.

17. Background. In Pennsylvania, Verizon uses one of two systems to generate monthly wholesale bills for competitors, depending upon the type of service the competitive LEC uses. Verizon relies on the Customer Record Information System (CRIS) to generate bills for some UNEs, UNE-P and resale offerings.⁴⁷ Verizon relies on the Carrier Access Billing System (CABS) to generate bills for access services, collocation, and the remaining UNEs, such as interoffice facilities and switching.⁴⁸ Once Verizon generates a competitive LEC's wholesale bills using the CRIS or CABS systems, Verizon can provide a competitive LEC with its bill in two formats: a "retail-formatted" bill or a "BOS BDT" bill.⁴⁹ A retail-formatted bill appears in the same type of end-user format that a Verizon retail customer would receive.⁵⁰ Although Verizon can transmit a retail-formatted bill to competitive LECs in a variety of mediums, such as CD-ROM or magnetic tape, Verizon usually prints its retail-formatted wholesale bills on paper.⁵¹ A BOS BDT bill, by contrast, appears in the industry-standard Billing Output Specification (BOS) Bill Data Tape (BDT) format that allows a wholesale carrier to use computer software to readily audit the data.⁵² As with the retail-formatted bills, Verizon can transmit a BOS BDT bill to competitive LECs across various mediums, including Verizon's "Connect:Direct" electronic transmission system, but Verizon usually provides BOS BDT bills on magnetic tape.⁵³

18. Since the introduction of local competition in Pennsylvania, Verizon has offered retail-formatted bills to competitive LECs. In December 2000, KPMG issued a report that found that the retail-formatted bills KPMG received from Verizon during the course of its testing were accurate.⁵⁴ Despite KPMG's findings, competitive LECs contested the accuracy of the retail-formatted bills before and after KPMG's tests.⁵⁵ Common errors included charges for lines and

⁴⁷ Verizon McLean/Wierzbicki/Webster Decl. at para. 128.

⁴⁸ *Id.*

⁴⁹ Verizon McLean/Wierzbicki/Webster Reply Decl. at paras. 14, 18.

⁵⁰ *Id.* at para. 14.

⁵¹ Regardless of the medium, the distinguishing feature of Verizon's retail-formatted bill is that it cannot be easily transferred into a computer spreadsheet or other electronic system that allows for computer auditing.

⁵² Verizon McLean/Wierzbicki/Webster Reply Decl. at para. 14.

⁵³ *Id.* at para. 18.

⁵⁴ KPMG Final Report at 565-572.

⁵⁵ See, e.g., CompTel Comments at 4; Covad Comments at 20-21; Curry Comments at 5; Z-Tel Comments at 6; CompTel Comments, Attach. 1, Declaration of Frank Lazzara at para 6b (CompTel Lazzara Decl.). According to competitive LECs, these billing problems are "substantially different and far greater than any billing issues that were present in" Massachusetts or New York. CompTel Comments at 5; accord Z-Tel Comments, Attach. 1, (continued....)

services not provided, misrated charges for services received, double billing for services which were incorporated in other charges, assessments of taxes when Verizon is not the remitting carrier or on accounts on which no taxes are due, subtotaled charges that could not be reconciled with totaled charges, and miscrediting or unidentifiable crediting of earlier billing errors.⁵⁶ Over time, Verizon has taken a number of steps to eliminate the inaccuracies contained in the retail-formatted bills.⁵⁷

19. Verizon first offered BOS BDT bills in January 2000 as a supplement to its retail-formatted bills.⁵⁸ Verizon, however, experienced problems with its BOS BDT bills and suspended BOS BDT billing after four months to allow for system corrections.⁵⁹ When Verizon reintroduced BOS BDT billing in October 2000, Verizon and various competitive LECs identified a number of problems that required correction.⁶⁰ In response, Verizon began modifying its BOS BDT billing system to correct these problems and at least one competitive LEC has acknowledged that Verizon's BOS BDT billing performance improved, albeit unevenly, over the next several months.⁶¹

20. In April 2001, Verizon implemented a process, which it continues to rely on at least on an interim basis, to manually review and adjust the BOS BDT bills to match them to the retail-formatted bills and to reconcile internal inconsistencies.⁶² During the manual review process, a "BDT Quality Team" comprised of Verizon employees uses computer software to

(Continued from previous page)

Declaration of Margaret D. Rubino at para. 8 (Z-Tel Rubino Decl.) ("Z-Tel continues dispute a far greater portion of its Pennsylvania than it does for New York, Massachusetts, and Texas"); Letter from Michael B. Hazzard, Counsel for Z-Tel Communications, Inc., to Magalie R. Salas, Secretary, Federal Communications Commission, CC Docket No. 01-138, at 3 (filed Aug. 17, 2001) (Z-Tel Aug. 17 *Ex Parte* Letter) ("Z-Tel spends a disproportionate share of its billing verification personnel dealing with its Verizon Pennsylvania bills than in other states, including New York and Massachusetts.").

⁵⁶ See, e.g., ASCENT Comments at 16; CompTel Comments at 4-5, 8-9; Curry Comments App. I, Ex. D (Complaint filed in *Curry Communications, Inc. v. Verizon Pennsylvania Inc.*, Pennsylvania Public Utility Commission, Docket No. C-00015458 (filed July 3, 2001)).

⁵⁷ Verizon McLean/Wierzbicki/Webster Decl. at paras. 158-161 (describing the measures Verizon took to correct inaccurate charges on the retail-formatted wholesale bills that resulted from systemic problems KPMG identified); Verizon McLean/Wierzbicki/Webster Reply Decl. at paras. 31-44 (same).

⁵⁸ Department of Justice Evaluation at 8 and n.28.

⁵⁹ *Id.* at 8 and n.30.

⁶⁰ Verizon McLean/Wierzbicki/Webster Decl. at para. 133.

⁶¹ See, e.g., WorldCom Comments at 3-4; WorldCom Comments Tab A, Declaration of Sherry Lichtenberg (Operation Support Systems) at paras. 24-29 (WorldCom Lichtenberg Decl.); Letter from Keith L. Seat, WorldCom, to Magalie R. Salas, Federal Communications Commission, CC Docket No. 01-138, at 1 (filed Aug. 17, 2001) (WorldCom Aug. 17 *Ex Parte* Letter). But see, e.g., Z-Tel Reply at 5.

⁶² Verizon McLean/Wierzbicki/Webster Decl. at para. 135.

determine whether the BDT balances internally and to flag any inconsistencies.⁶³ A “Validation Group” comprised of Verizon employees then investigates and resolves any errors that the BDT Quality Team finds.⁶⁴ Once the Validation Group enters the manual adjustments necessary to balance the retail-formatted bill and the BOS BDT bill, the BDT Quality Team then re-examines the BOS BDT bill to ensure that the Validation Group’s adjustments correct the imbalance.⁶⁵ In addition, a “Wholesale Billing Services Group” (WBSG) comprised of Verizon employees runs its own independent computer program on the BOS BDT bill to provide additional verification of the Validation Group’s work.⁶⁶ If the WBSG finds errors, it can return the BOS BDT bill to the Validation Group for further review.⁶⁷

21. After adopting the manual review process, Verizon then contracted with PriceWaterhouseCoopers (PWC) to review whether Verizon’s BOS BDT bills were comparable to its retail-formatted bills and to test the readability and auditability of the BOS BDT bill.⁶⁸ With a few noted exceptions, PWC concluded that the BOS BDT bill matches the retail-formatted bill for key billing elements and summarization points; that the dollar amounts charged on the BOS BDT bill for those billing elements and summarization points match the retail-formatted bill; that the BOS BDT bill contains enough information for a third party to recalculate the charges; and that the BOS BDT bill is in balance.⁶⁹ Verizon did not ask PWC to test the completeness or accuracy of the billing information on the BOS BDT bill because KPMG had already done so for the retail-formatted bill.⁷⁰ After the PWC test ended, Verizon announced that competitive LECs could elect to treat either the retail-formatted bill or the BOS BDT bill as the “bill of record” beginning on May 22, 2001.⁷¹ Verizon continued to make additional software

⁶³ *Id.* at para. 136. A bill that “balances” internally is one in which the sum of every charge or credit results in the stated total at the next highest level of detail. *See* Letter from Dee May, Executive Director, Federal Regulatory, Verizon, to Magalie Roman Salas, Secretary, Federal Communications Commission, CC Docket No. 01-138, Attach. 1 at 3 (filed Aug. 1, 2001) (Verizon Aug. 1 *Ex Parte* Letter).

⁶⁴ Verizon McLean/Wierzbicki/Webster Decl. at para. 136. The Validation Group examines the data from the BOS BDT bill and compares this data to the retail-formatted bill. In most cases, Verizon has previously identified the source of the problem and has already begun to develop a fix; in “a smaller number of cases,” Verizon cannot identify the source of the problem and the Validation Group investigates these cases to ascertain the reason for the imbalance. *Id.* at paras. 137-38.

⁶⁵ *Id.* at paras. 138-39.

⁶⁶ *Id.* at para. 140.

⁶⁷ *Id.* at para. 141.

⁶⁸ *Id.* at para. 143; Verizon McLean/Wierzbicki/Webster Reply Decl. at para. 24.

⁶⁹ Verizon McLean/Wierzbicki/Webster Decl. at para. 143; Verizon Application App. A, Vol. 2, Tab C, Joint Declaration of Catherine Bluvol and Sameer Kumar at paras. 23-48 (Verizon Bluvol/Kumar Decl.).

⁷⁰ Verizon McLean/Wierzbicki/Webster Decl. at para. 143; Verizon Bluvol/Kumar Decl. at para. 17.

⁷¹ Verizon McLean/Wierzbicki/Webster Decl. at para. 134. Treating the BOS BDT bill as an official bill of record allowed competitive LECs to file billing disputes with Verizon based exclusively on information contained (continued....)

modifications to the BOS BDT billing system after the PWC review, including modifications in March, April, May and June that, according to Verizon, resolved all but a handful of minor issues with the BOS BDT bill.⁷²

22. Discussion. Based on the record, there appear to be a number of issues related to the quality of Verizon's wholesale bills, particularly the BOS BDT bill generated by Verizon's CRIS system. As an initial matter, we note that, while we agree with Verizon that the appropriate standard to apply to the wholesale billing function is the "meaningful opportunity to compete" standard, we disagree with Verizon's assertion that we should dismiss any problems that competitive LECs experience with their wholesale bills because the wholesale bill does not directly affect a competitive LEC's ability to bill its end-user customers.⁷³ Rather, we agree with the competitive LECs that the BOC must demonstrate that it can produce a readable, auditable and accurate wholesale bill in order to satisfy its nondiscrimination requirements under checklist item 2.⁷⁴

23. Inaccurate or untimely wholesale bills can impede a competitive LEC's ability to compete in many ways.⁷⁵ First, a competitive LEC must spend additional monetary and personnel resources reconciling bills and pursuing bill corrections.⁷⁶ Second, a competitive LEC must show improper overcharges as current debts on its balance sheet until the charges are resolved, which can jeopardize its ability to attract investment capital.⁷⁷ Third, competitive LECs

(Continued from previous page)

on the BOS BDT bill, rather than the information contained on the retail-formatted bill. *See id.*; Verizon Application at 66.

⁷² Verizon McLean/Wierzbicki/Webster Reply Decl. at paras. 19-20; Letter from Dee May, Executive Director Federal Regulatory, Verizon to Magalie Roman Salas, Secretary, Federal Communications Commission, CC Docket No. 01-138, at 6 (filed Aug. 17, 2001) (Verizon Aug. 17 *Ex Parte* Letter).

⁷³ Verizon Reply at 7-8; Verizon McLean/Wierzbicki/Webster Reply Decl. at para. 31; Verizon Aug. 17 *Ex Parte* Letter at 2.

⁷⁴ *See, e.g.*, AT&T Reply at 26-27; Z-Tel Aug. 17 *Ex Parte* Letter at 2.

⁷⁵ The effect of untimely or inaccurate wholesale bills can prove especially acute for many competitors because wholesale inputs purchased from incumbent LECs often comprise the single largest cost element of providing service to their end users. *See, e.g.*, WorldCom Comments at 1-2; AT&T Comments Exhibit C, Joint Declaration of Mason Fawzi and Robert J. Kirchberger, at 39 (AT&T Fawzi/Kirchberger Decl.); AT&T Reply at 26; Z-Tel Aug. 17 *Ex Parte* Letter at 1-2.

⁷⁶ *See, e.g.*, Curry Comments App. I at 5-6 (estimating labor costs expended to correct Verizon billing errors); Z-Tel Rubino Decl. at para. 8 ("Z-Tel estimates that it dedicates one full time equivalent week per month to the reconciliation of the Pennsylvania bill. For New York, Massachusetts and Texas, one full time equivalent spends no more than two days per month per state on bill reconciliation, even though Z-Tel's customer base in New York dwarfs that in Pennsylvania."); AT&T Reply at 27 (A competitive LEC's "attempt to verify Verizon's charges . . . requires a substantial dedication of time and administrative costs.") (citations omitted).

⁷⁷ *See, e.g.*, CompTel Lazzara Decl. at para. 9 ("MetTel is negatively impacted by billing errors generated by Verizon in most aspects of its business, not the least of which are the problems that these errors create in MetTel's interaction with its current and potential investors."); Z-Tel Aug. 17 *Ex Parte* Letter at 2 ("even if Z-Tel believes the bill is 20 percent inaccurate, independent financial auditors will still review the total amount invoiced and may (continued....)

must operate with a diminished capacity to monitor, predict and adjust expenses and prices in response to competition.⁷⁸ Fourth, competitive LECs may lose revenue because they generally cannot, as a practical matter, back-bill end users in response to an untimely wholesale bill from an incumbent LEC.⁷⁹ Accurate and timely wholesale bills in both retail and BOS BDT formats thus represent a crucial component of OSS.⁸⁰

24. In past section 271 orders, the Commission has determined checklist compliance for OSS functions primarily by relying on performance data that reflects actual commercial usage.⁸¹ Although the Commission has never required applicants to provide particular forms of evidence to demonstrate checklist compliance, it has consistently held that commercial performance data is the most persuasive form of evidence.⁸² In this case, however, we cannot rely exclusively on past commercial performance data because, among other things, Verizon has made significant changes to its wholesale billing systems in the most recent months leading up to this application.⁸³ Therefore, although we are able to rely on some evidence reflecting commercial usage from Verizon's most recent billing cycles, we must supplement our analysis by relying on third-party testing to find that Verizon's current systems provide competitors with a meaningful opportunity to compete. Despite the historical problems that competitors have experienced with Verizon's billing system, we find that Verizon has satisfied the wholesale billing component of checklist item 2.

(Continued from previous page)

require Z-Tel to 'carry' a portion of the disputed amount as a Cost of Goods Sold.") (emphasis omitted); *id.* at 3 ("whether Z-Tel pays Verizon or withholds from Verizon disputed amounts is immaterial from an accounting perspective.").

⁷⁸ See, e.g., CompTel Lazzara Decl. at para. 9 ("MetTel is unable to evaluate the success of its business from a profitability margin perspective."); Z-Tel Aug. 17 *Ex Parte* Letter at 1 ("[t]o stay in business, every company . . . must be able to reliably predict its revenues and expenses").

⁷⁹ See, e.g., CompTel Lazzara Decl. at paras. 3-4 ("Due to the inadequacies of Verizon's billing systems and Verizon's lack of attention to concerns repeatedly raised . . . , MetTel continually experiences customer loss and corporate credit damage.").

⁸⁰ As a practical matter, the sheer number of billing records generated for competitors that rely heavily on incumbent LEC inputs can effectively render a retail-formatted bill unusable. See, e.g., ASCENT Comments at 15-16; CompTel Comments at 4, 8; Covad Comments at 21; CWA Comments at 4; WorldCom Comments at 2; AT&T Fawzi/Kirchberger Decl. at 38-39; WorldCom Lichtenberg Decl. at para. 11. Thus, offering BOS BDT bills is important to offering competitors a meaningful opportunity to compete. See Pennsylvania Commission Comments at 102 ("It is undisputed that electronic [BOS BDT] billing is a component of the billing process . . .").

⁸¹ Appendix C at para. 7.

⁸² *Application of Ameritech Michigan Pursuant to Section 271 of the Communications Act of 1934, as amended*, CC Docket No. 97-137, 12 FCC Rcd 20543, 20618, para. 138 (1997) (*Ameritech Michigan Order*); *Application of BellSouth Corporation, et al., for Provision of In-Region, InterLATA Services in Louisiana*, Memorandum Opinion and Order, 13 FCC Rcd 20599, 20655, para. 86 (1998) (*BellSouth Louisiana Order II*).

⁸³ See *infra* para. 41 and n.157.

25. *Commercial Usage.* A number of commenters challenge the commercial reliability of Verizon's wholesale bill. Competitors contend that Verizon has not clearly demonstrated its ability to deliver a BOS BDT bill that is readable, accurate and auditable. These commenters recount Verizon's history of billing inaccuracies in 2000 and 2001.⁸⁴

26. While Verizon concedes past problems, particularly with its BOS BDT bill, Verizon contends that recent data show significantly improved performance.⁸⁵ Verizon notes that it allowed competitors to designate the BOS BDT bill as the bill of record in May and implemented a series of software fixes, including changes in March, April, May and June of this year.⁸⁶ Verizon also implemented a series of system fixes, including changes in March, April, May and June of this year that addressed major systemic problems.⁸⁷ As evidence that these fixes have improved its performance, Verizon notes that the total dollar amounts in dispute in Pennsylvania for each month from January through June 2001 show a steady positive trend: from 26.59 percent of total charges in February, to 13.08 percent of total charges in March, to 9.47 percent of total charges in April, to 2.36 percent of total charges in May, to 2.21 percent of total charges in June.⁸⁸ Moreover, for Verizon's historic problem areas, such as the appearance of incorrect tax charges, the creation of improper stand-alone bills and the inclusion of improper directory advertising charges, the error rate has dropped steadily to the point where, as of June, the amounts under dispute are relatively nominal both in dollar value and as a percentage of current charges billed.⁸⁹ Specifically, the value of incorrect taxes on both retail-formatted and

⁸⁴ See, e.g., ASCENT Comments at 16; CompTel Comments at 4-5, 8-9; WorldCom Comments at 5-6; Z-Tel Comments at 7; AT&T Fawzi/Kirchberger Decl. at 51; Curry Comments App. I, Ex. D; WorldCom Lichtenberg Decl. at para. 15. These errors appear to be most pronounced in the BOS BDT bill that Verizon provides to UNE-P subscribers, such as WorldCom, Z-Tel and MetTel. See, e.g., CompTel Comments at 8-9. WorldCom alleges that Verizon's BOS BDT bill is so poorly formatted that WorldCom cannot perform the most basic function of loading Verizon's BOS BDT bill into WorldCom's auditing software. WorldCom Lichtenberg Decl. at paras. 19-26 (describing billing errors and providing sample ticket numbers for UNE-P billing errors over the last six months). Verizon states that it "will work with WorldCom" to assess WorldCom's problem in loading the BOS BDT bill, but adds that "Verizon does not understand the difficulty WorldCom is having," particularly since PWC and at least one competitive LEC have proved able to review and analyze the BOS BDT bill. Verizon Aug. 17 *Ex Parte* Letter at 7.

⁸⁵ See, e.g., Verizon McLean/Wierzbicki/Webster Decl. at para. 135 ("in many cases the BOS BDT did not match the [retail-formatted] paper bill because of differences in the timing of posting usage charges to the [retail-formatted] paper bill and the BDT," but "Verizon implemented a system change on April 23 to synchronize the cut-off dates."). In analyzing recent performance data for wholesale billing accuracy, we do not rely on the performance metrics that Verizon currently follows in Pennsylvania. See *infra* at para. 41 and n.157.

⁸⁶ Verizon McLean/Wierzbicki/Webster Decl. at paras. 134-135; Verizon McLean/Wierzbicki/Webster Reply Decl. at paras. 20-21.

⁸⁷ Verizon scheduled more fixes for August. See Verizon McLean/Wierzbicki/Webster Reply Decl. at para. 34.

⁸⁸ Verizon Aug. 17 *Ex Parte* Letter at 5.

⁸⁹ *Id.* at 4-5.

BOS BDT bills now represents less than one tenth of one percent of current billed charges;⁹⁰ the number of new improperly issued stand-alone bills now measures less than one-hundredth of one percent of the number of component accounts;⁹¹ and the improper assessment of inter-exchange carrier directory advertising charges now constitutes well under one tenth of one percent of current charges.⁹² In short, recent commercial data demonstrates that Verizon has steadily improved its wholesale billing systems to the point where error rates no longer differ materially from wholesale billing data for those states in which BOCs have already received section 271 authority.⁹³

27. One competitive LEC concedes that Verizon's fixes have resulted in a marked improvement in recent bills and another LEC reports receiving bills with few, if any, errors.⁹⁴ In addition, Z-Tel, which continues to dispute a higher proportion of its monthly bills from Verizon Pennsylvania than it does in other Verizon states, such as New York and Massachusetts,

⁹⁰ Verizon McLean/Wierzbicki/Webster Reply Decl. at paras. 33-35. The occurrence of incorrect charges for taxes has steadily declined from 1.06 percent of the competitive LECs' February bills, to 0.54 percent of the March bills, to 0.03 percent of the April and May bills to 0.04 percent of the June bills. See Verizon Aug. 17 *Ex Parte* Letter at 4.

⁹¹ Verizon McLean/Wierzbicki/Webster Reply Decl. at paras. 36-37. A competitive LEC's bill is comprised of many individual end-user accounts, which are called the competitive LEC's "component accounts." *Id.* at para. 36. To allow for auditing, billing systems link the competitive LEC's component accounts to a Summary Bill Master. *Id.* In some cases, however, KPMG found that Verizon might send a competitive LEC a "stand-alone bill" where some of the competitive LEC's component accounts arrive separately from the associated Summary Bill Master. *Id.* Specifically, KPMG issued an exception report on October 27, 1999, which stated that Verizon's "procedures do not adequately ensure that component invoices are associated with master accounts for billing purposes." See Verizon Application at App. B, Tab. G, Vol. 19, Sub-Tab 4. KPMG found that, "[f]rom the standpoint of a CLEC, routinely identifying and resolving stand-alone bills would require significant effort." *Id.* After Verizon implemented a series of software modifications, however, KPMG performed additional tests and concluded on September 14, 2000 that this exception could be closed. *Id.*

⁹² Verizon McLean/Wierzbicki/Webster Reply Decl. at paras. 38-40; Verizon Aug. 17 *Ex Parte* Letter at 4 (reporting the percent of disputed directory advertising charges as 0.51 percent for February, 1.09 percent for March, 0.09 percent for April, 0.17 percent for May and 0.08 percent for June).

⁹³ As Z-Tel acknowledges in its comments, some nominal level of dispute over wholesale billing is to be expected in any large-volume, carrier-to-carrier relationship. See Z-Tel Comments at 11 (Z-Tel disputes two-to-three percent of its bill in states such as Massachusetts, New York and Texas); see also Verizon Aug. 17 *Ex Parte* Letter at 5 (noting that disputes expressed as a percentage of current bill charges in New York ranged from 9.31 to 5.17 percent from February to June 2001). While we lack sufficient record evidence to determine what an industry-average dispute rate might be, we recognize, as a practical matter, that high-volume, carrier-to-carrier commercial billing cannot always be perfectly accurate.

⁹⁴ See Conestoga Comments at 2 ("Conestoga's [retail-formatted] resale bills . . . are presented in a form that allows Conestoga to understand the products and services for which it is being billed and the amounts charged. Our staff is able to audit the bills, verify the charges presented, and identify any potential inaccuracies within a reasonable period of time."); Z-Tel Reply at Attach. A, Supplemental Declaration of Margaret D. Rubino on Behalf of Z-Tel Communications, Inc. at paras. 3, 6 (Z-Tel Reply Rubino Decl.) (noting that Z-Tel's June 28 wholesale bill reflected "[s]ome [i]mprovement [o]ver [p]ast [m]onths" and that Z-Tel "is encouraged by the attention has now devoted to fixing the problems in its wholesale bill").

acknowledges that, once cumulative disputes are accounted for, the percentage of the bill under dispute diminishes greatly. Although Z-Tel initially stated that various billing problems have not been fixed,⁹⁵ it later clarified that much of its current billing disputes with Verizon are cumulative and span multiple billing periods other than the month in which Z-Tel filed the dispute.⁹⁶ Thus, while Z-Tel reports disputing 36.51 percent of its total June bill from Verizon, it acknowledges that only 11.33 percent of its total June bill arose from errors that actually appeared on the June bill.⁹⁷

28. To the extent that other competitive LECs report errors, these errors do not appear to reflect systemic wholesale billing problems that are likely to recur. WorldCom, for example, attributes the majority of its total billing disputes with Verizon for May and June to just two items: erroneous port-charge rates and questionable late fees.⁹⁸ Verizon acknowledges that the erroneous port-charge rates result from its failure to enter a state-mandated additional port charge into its billing systems.⁹⁹ Verizon asserts that it has corrected this problem and its billing system now contains the two port-charge rates available in Pennsylvania.¹⁰⁰ Although Verizon acknowledges that it owes WorldCom for past improperly billed port charges, WorldCom and

⁹⁵ Z-Tel Reply at 5.

⁹⁶ See, e.g., Letter from Michael B. Hazzard, Counsel to Z-Tel Communications, Inc., to Magalie R. Salas, Secretary, Federal Communications Commission, CC Docket No. 01-138, Attach. 1 (Aug. 10, 2001) (Z-Tel Aug. 10 *Ex Parte* Letter).

⁹⁷ See, e.g., Z-Tel Aug. 10 *Ex Parte* Letter at Attach. 1. Although even an 11.33 percent dispute rate might ordinarily be a source of concern, the percentage that Z-Tel provides only reflects amounts that Z-Tel disputes, not amounts Verizon has credited, and as discussed above, Verizon has identified the cause for the vast majority of these possible billing errors, and, in many cases, has already implemented software fixes. See *supra* para. 27.

⁹⁸ See Letter from Keith L. Seat, WorldCom, to Magalie R. Salas, Federal Communications Commission 2-3 (Aug. 17, 2001) (WorldCom Aug. 17 *Ex Parte* Letter).

⁹⁹ Verizon Aug. 17 *Ex Parte* Letter at 10. The Pennsylvania Commission directed Verizon to tariff two port charges – one that includes all vertical features at a price of \$2.67 per month and another that includes all but four vertical features at a price of \$1.90 per month. Verizon, however, tariffed only the more expensive port charge for UNE-P orders and, after WorldCom complained, Verizon agreed to credit WorldCom the seventy-seven cent difference and to correct its OSS to permit competitive LECs to order both the expensive and less expensive ports. WorldCom Comments at 6; Verizon Sept. 10 *Ex Parte* Letter at 2.

¹⁰⁰ Verizon Aug. 17 *Ex Parte* Letter at 10. According to WorldCom, Verizon has compensated WorldCom only for two of the thousands of erroneously billed switch ports that it ordered in 2000 and refused to explain its billing practices for 2001. WorldCom Comments at 6. Verizon, however, asserts that when it reviewed port orders to provide competitive LECs with credits for ordering the less expensive port, it found that some competitive LECs requested features only available in the more expensive port. Verizon Aug. 17 *Ex Parte* Letter at 10. As a result, those competitive LECs “had to make an account by account determination of which port type and features they wanted.” *Id.* Verizon asserts that “[u]ntil that reconciliation was complete, Verizon could not change the port type” and credit the competitive LEC accounts. *Id.* Verizon adds that, contrary to WorldCom’s claims, it has provided competitive LECs with the ability to order the lower-priced port charge electronically. Compare World Com Reply Tab A, Reply Declaration of Sherry Lichtenberg (Operations Support Systems) at para. 27 (WorldCom Lichtenberg Reply Decl.), with Verizon Aug. 17 *Ex Parte* Letter at 10, and Verizon Sept. 10 *Ex Parte* Letter at 2-3.

Verizon continue to disagree about whether WorldCom is entitled to a credit based on the relatively small number of ports that Verizon actually billed to WorldCom or on the much larger number of ports that WorldCom ordered from Verizon.¹⁰¹ Similarly, WorldCom's late-fee dispute originally arose from WorldCom's decision to withhold payment for bills issued in the winter and early spring.¹⁰² As with the port-charge issue, the late-fee dispute does not stem from any systemic flaws in Verizon's billing systems or processes, but rather from a still-unsettled disagreement between WorldCom and Verizon about whether WorldCom could rightfully withhold payment on its bills when it was experiencing its most acute problems with Verizon's bills.¹⁰³ While these disputes reflect past performance problems with Verizon's billing system, they do not demonstrate that Verizon's current wholesale billing systems are flawed today or were flawed at the time Verizon filed its application.

29. As described above, moreover, improper retail charges have declined to extremely low levels.¹⁰⁴ Verizon also claims that many of the remaining charges listed as "resale" or "retail" on a wholesale bill may actually represent properly billed charges.¹⁰⁵ For instance, Verizon may have properly applied charges to a UNE-P account, but incorrectly listed those charges as "resale" items when Verizon produced the BOS BDT bill.¹⁰⁶ Although Verizon acknowledges that it continues to improperly assess a small number of retail charges on UNE-P bills, it has scheduled system corrections to fix this problem for August and, in the meantime, has initiated a new policy of not requiring competitive LECs to pay these charges from their BOS BDT bills while Verizon investigates the improper resale charges.¹⁰⁷ In any case, Verizon seems to exercise reasonable diligence in crediting improper resale charges.¹⁰⁸ Thus, while the BOS

¹⁰¹ Verizon Aug. 17 *Ex Parte* Letter at 9-10.

¹⁰² *Id.* at 9.

¹⁰³ See WorldCom Aug. 17 *Ex Parte* Letter at 2 ("Verizon has sometimes erroneously reported WorldCom payments as late until WorldCom provided check numbers and showed Verizon that it had received (and cashed) the checks on time"); Verizon Aug. 17 *Ex Parte* Letter at 9 ("contrary to WorldCom's claim, it does owe late fees"); see also Verizon Sept. 10 *Ex Parte* Letter at 3 ("WorldCom has not paid its bills.").

¹⁰⁴ See *supra* para. 26.

¹⁰⁵ Verizon McLean/Wierzbicki/Webster Reply Decl. at para. 42.

¹⁰⁶ *Id.*

¹⁰⁷ *Id.* at paras. 41-44. We reject Verizon's assertion that *no* harm to competitive LECs occurs from the improper assessment of retail or resale charges on a wholesale bill under the theory that competitive LECs are not required to pay disputed charges. See Verizon McLean/Wierzbicki/Webster Decl. at para. 152. Rather, we agree with Z-Tel and other competitive LECs that the assessment of retail or resale charges on wholesale bills prevents competitive LECs from understanding the ultimate cost of goods sold and injects uncertainty into the business process. See, e.g., Z-Tel Rubino Decl. at para. 7; Z-Tel Aug. 17 *Ex Parte* Letter at 1-2. While Verizon's remedial actions do not represent a complete solution to the improper assessment of retail or resale charges on wholesale bills, Verizon's actions – in the context of low absolute levels of improper charges, a trend toward increasing accuracy and a practice of reasonably timely crediting of improper charges – may help mitigate some of the harm that occurs.

¹⁰⁸ Verizon Aug. 17 *Ex Parte* Letter at 8. Verizon states that it investigated Z-Tel's claim of inappropriate charges for "retail features" or "end user features" on Z-Tel's June bill. According to Verizon, many retail charges (continued....)

BDT bills do not precisely balance and mirror the retail-formatted bills,¹⁰⁹ we find that the minor remaining differences between the retail-formatted and BOS BDT bills are nominal, credited in a reasonable time frame and, thus, not competitively significant.

30. In addition to the extensive comments regarding Verizon's wholesale billing accuracy, a few parties have commented on the timeliness of Verizon's wholesale bills.¹¹⁰ Indeed, some competitive LECs claim that these temporary delays constitute an independent basis to find Verizon does not comply with checklist item 2.¹¹¹ For its part, Verizon notes that some of the solutions it implemented to correct wholesale billing issues temporarily created a backlog of BOS BDT bills, which decreased BOS BDT bill timeliness for a discrete and isolated time period.¹¹² Verizon, however, states that "[a]s of June 20, Verizon has cleared virtually the entire backlog" and can deliver a large volume of electronic [BOS BDT] bills, which require a certain amount of manual processing, on time.¹¹³ Performance data indicate that any delay associated with BOS BDT bills was temporary, associated with on-going improvements to the billing process and not indicative of a larger, systemic problem with delivering timely bills.¹¹⁴

(Continued from previous page)

improperly appeared on Z-Tel's June bill. However, Verizon found that credits had been made for 13,000 of the approximately 15,000 charges that it investigated. Some of these credits appeared on the same June bill for which Z-Tel had submitted a claim, while the remainder appeared on Z-Tel's July bill. *Id.* at 8-9.

¹⁰⁹ AT&T Fawzi/Kirchberger Decl. at para. 81 and n.65 (citing Verizon Bluvol/Kumar Decl. at 3 (noting that despite similar key summarization and billing points, discrepancies remain for other summarization and billing points)).

¹¹⁰ See, e.g., Curry Comments at 5; WorldCom Comments at 4; WorldCom Lichtenberg Decl. at paras. 18-20, 47-49; Z-Tel Rubino Decl. at para. 5; WorldCom Lichtenberg Reply Decl. at para. 28.

¹¹¹ See, e.g., ASCENT Comments at 19; WorldCom Lichtenberg Decl. at paras. 47-49.

¹¹² Verizon McLean/Wierzbicki/Webster Decl. at para. 156; see also Verizon McLean/Wierzbicki/Webster Reply Decl. at para. 30; Verizon Aug. 17 *Ex Parte* Letter at 7-8. For retail-formatted bills, such as those that Curry Communications identified as late, Verizon points to data showing that it sent bills to Curry Communications well within ten business days of the bill dates, as required by the Pennsylvania Carrier-to-Carrier guidelines. See Verizon McLean/Wierzbicki/Webster Reply Decl. at para. 29 and Attach. 6. Curry has not offered a response to this data.

¹¹³ Verizon McLean/Wierzbicki/Webster Decl. at para. 156. Contrary to AT&T's argument, moreover, the series of fixes to Verizon's wholesale billing system prior to its application does not demonstrate that Verizon's wholesale billing system was inadequate at the time it filed its application. See AT&T Reply at 28.

¹¹⁴ Verizon McLean/Wierzbicki/Webster Decl. at para. 156. In some cases, Verizon and the competitive LECs disagree about certain aspects of Verizon's timeliness in wholesale billing. Compare WorldCom Lichtenberg Reply Decl. at para. 28 (stating July 1 bill had not arrived as of August 6, 2001), with Verizon Aug. 17 *Ex Parte* at 8 (stating Verizon sent the July 1 bill on July 13). In other cases, Verizon and the competitive LECs seem to agree that a single human error by Verizon can delay the arrival of a wholesale bill. Compare Letter from Andrew M. Klein, Counsel for the Competitive Telecom. Ass'n to Magalie R. Salas, Secretary, Federal Communications Commission 2 (Aug. 15, 2001) (CompTel Aug. 15 *Ex Parte* Letter) (noting that MetTel received another competitive LEC's billing tape in its July billing envelope), with Verizon Aug. 17 *Ex Parte* at 11 (conceding that human error led Verizon to place the wrong billing tape into MetTel's July billing envelopes, but noting that it recreated and resent the bill to MetTel upon learning of the error). In any case, these types of discrete, limited (continued....)

31. *Third-Party Testing.* Third-party studies of Verizon's billing systems, processes and performance bolster Verizon's recent commercial data. For Verizon's retail-formatted bills, KPMG issued a report in December 2000 that found that the retail-formatted bills KPMG received from Verizon during the course of its testing were accurate and timely.¹¹⁵ During the test period, KPMG issued 67 observations and exceptions concerning Verizon's retail-formatted bill and Verizon implemented the necessary fixes for all competitive LEC accounts.¹¹⁶ Using military-style testing techniques, KPMG then re-tested Verizon's billing system after Verizon modified its system and found in its final December 2000 report that Verizon had satisfied all test points.¹¹⁷

32. For Verizon's BOS BDT bills, PWC, with a few exceptions, concluded that the BOS BDT bill matches the retail-formatted bill for key billing elements and summarization points, that the dollar amounts charged on the BOS BDT bill for those billing elements and summarization points match the retail-formatted bill, that the BOS BDT bill contains enough information for a third party to recalculate the charges, and that the BOS BDT bill is in balance.¹¹⁸ PWC also determined that the absolute value of the manual adjustments needed to match the BOS BDT bill to the retail-formatted bill decreased by more than half from the April-May billing cycle to the May-June billing cycle.¹¹⁹

33. Several competitive LECs, however, assert that we should not rely on the KPMG and PWC studies in assessing Verizon's wholesale billing performance.¹²⁰ We do not find these arguments persuasive. Although we acknowledge, consistent with prior section 271 orders, that third-party studies are not the most probative evidence of a BOC's compliance with section 271¹²¹ and that a third-party test alone cannot outweigh reliable commercial data,¹²² the

(Continued from previous page) _____

delays and errors generally appear to indicate minor differences capable of being handled under Verizon's dispute-resolution process, rather than systemic failures in Verizon's billing systems significant enough to warrant a finding of non-compliance with checklist item 2.

¹¹⁵ KPMG Final Report at 565-572.

¹¹⁶ Verizon McLean/Wierzbicki/Webster Reply Decl. at para. 17.

¹¹⁷ KPMG Final Report at 14, 501-572.

¹¹⁸ Verizon McLean/Wierzbicki/Webster Decl. at para. 143; Verizon Bluvol/Kumar Decl. at paras. 23-48.

¹¹⁹ Verizon McLean/Wierzbicki/Webster Reply Decl. at para. 24; *see* Letter from Clint E. Odom, Verizon, to Magalie R. Salas, Federal Communications Commission, at 1 and Attach. 1 (July 3, 2001) (Verizon July 3 *Ex Parte* Letter) (PWC performed the same calculation it performed initially for the period after the May fixes – May 20 through June 13 – and found that the percentage of manual adjustments had dropped to 0.89 percent, a 50 percent reduction).

¹²⁰ *See, e.g.,* WorldCom Comments at 5; Z-Tel Comments at 6-7.

¹²¹ *Bell Atlantic New York Order*, 15 FCC Rcd at 3974, para. 53 ("the most probative evidence that a BOC is providing non-discriminatory access is evidence of actual commercial usage"); *Ameritech Michigan Order*, 12 FCC Rcd at 20618, para. 138 ("We agree with the Department of Justice that the most probative evidence that OSS functions are operationally ready is actual commercial usage.").

Commission has held that third-party studies nevertheless can provide valuable, relevant evidence of OSS performance.¹²³ In this case, both KPMG's and PWC's studies provide relevant evidence of Verizon's billing performance that supplement the commercial performance data that Verizon has presented in this proceeding.

34. We also reject arguments that the KPMG study is flawed. KPMG used a "military-style" test in which it tested various billing functions, identified exceptions and re-tested until Verizon had eliminated the exceptions.¹²⁴ While some of the wholesale billing errors that KPMG identified continued to occur for a time after the KPMG study ended, we find that the recurrence of some errors does not diminish the value of the KPMG study.¹²⁵ Verizon made three types of software changes in response to KPMG's study: (i) changes affecting bill calculation input; (ii) changes affecting the bill calculation logic; and (iii) changes affecting bill output (i.e., formatting).¹²⁶ Verizon could make relatively straightforward software changes to implement changes to the bill calculation logic and the bill output. For these problems, one software change would correct the errors for all competitive LECs. Verizon could not make simple software changes to correct errors in bill calculation input, however, because the errors vary by individual competitive LEC account. For these problems, Verizon had to address each existing competitive LEC account individually. According to Verizon, many of the wholesale billing problems competitive LECs have experienced – improper resale charges, inappropriate stand-alone bills and improper tax charges – stemmed from errors embedded in competitive LECs' existing accounts.¹²⁷ Verizon asserts that such embedded errors in existing accounts now have been repaired.¹²⁸ In any case, as explained above, remaining errors as of the date of filing were at *de minimis* levels.

(Continued from previous page)

¹²² WorldCom Comments at 5; Z-Tel Comments at 6-7.

¹²³ See, e.g., *Ameritech Michigan Order*, 12 FCC Rcd at 20618, para. 138 ("Carrier-to-carrier testing, independent third-party testing, and internal testing also can provide valuable evidence pertaining to operational readiness, but are less reliable indicators of actual performance than commercial usage."). Contrary to AT&T's assertion, moreover, the repeated need for Verizon to correct its billing system during KPMG's testing does not diminish Verizon's credibility, but rather helps demonstrate Verizon's commitment to correcting systemic problems in its billing system. See AT&T Fawzi/Kirchberger Decl. at paras. 88-89; see also WorldCom Lichtenberg Decl. at para. 35.

¹²⁴ KPMG Final Report at 14. The Commission placed significant reliance on this type of military-style testing in approving Verizon's New York application. See *Bell Atlantic New York Order*, 15 FCC Rcd at 3998, para. 98.

¹²⁵ See WorldCom Comments at 5 ("KPMG did not . . . evaluate whether there were similar problems on the [retail-formatted] paper bill" after more competition emerged in the Pennsylvania market"); Department of Justice Evaluation at 8 n.26 ("It is not clear why the test did not capture the billing accuracy issues raised by [competitive LECs]."). The Department of Justice notes that KPMG relied on the bills submitted to it as a test competitive LEC, not the bills of actual competitive LECs in Pennsylvania. See Department of Justice Evaluation at 8 n.26 (citation omitted).

¹²⁶ Verizon Aug. 17 *Ex Parte* Letter at 5-6.

¹²⁷ *Id.* at 6-7.

¹²⁸ *Id.*

35. PWC's two reports also provide additional assurance that the BOS BDT bill is largely comparable to the retail-formatted bill and that the BOS BDT bill was readable and auditable. Although we agree with the Department of Justice and several commenters that PWC's reports should carry less weight than the KPMG study that the Pennsylvania Commission oversaw and in which the competitive LECs could participate,¹²⁹ we do not discredit PWC's reports in their entirety because the authors qualified some of their results,¹³⁰ conducted their studies at different times from KPMG,¹³¹ or could have conducted a more comprehensive study of Verizon's BOS BDT billing.¹³² As the commenters observe, PWC's first report did not "test the completeness or accuracy of the billing information on the BDT."¹³³ Rather, PWC's first report determined whether Verizon's BOS BDT bills were comparable to Verizon's retail-formatted bills, which KPMG's nineteen-month study had already established as accurate.¹³⁴

36. PWC's second report establishes that a competitive LEC could use commercially available software to read and audit the vast majority of charges on the BOS BDT bill.¹³⁵ Given

¹²⁹ See Department of Justice Evaluation at 10.

¹³⁰ See, e.g., AT&T Fawzi/Kirchberger Decl. at para. 86 (PWC's qualifications underscore the "fundamental inaccuracy and unreliability problems that have permeated the [BOS] BDT bills since Verizon first tried to roll them out in Pennsylvania"); see also WorldCom Lichtenberg Decl. at para. 42 (describing various exceptions from the PWC study).

¹³¹ See, e.g., WorldCom Comments at 5 (noting that KPMG's study occurred prior to PWC's study and prior to the time when "commercial data revealed problems with the electronic [BOS BDT] bills."). In any case, PWC's primary test period for the BOS BDT bill follows the KPMG study by only five months. See Verizon Bluvol/Kumar Decl. at para. 9 (noting that the test period for four of the five assertions ran from April to May, 2001).

¹³² See, e.g., AT&T Fawzi/Kirchberger Decl. at para. 92 ("the PWC review apparently did not evaluate [Universal Service Order Code]-level detail – a critically important requirement of electronic [BOS BDT] billing"); Z-Tel Comments at 9 (noting that PWC does not appear to have reviewed account-level or USOC-level detail, where many errors have occurred); WorldCom Lichtenberg Decl. at para. 41 ("it simply makes no sense to assess the accuracy of the electronic [BOS BDT] bill through a third party comparison with the [retail-formatted] paper bill when direct commercial evidence of the accuracy of the electronic bill exists."). A "Universal Service Order Code" (USOC) is an alphanumeric code used to identify a product service order. See KPMG Final report at 696.

¹³³ WorldCom Comments at 5 (citing Verizon McLean/Wierzbicki/Webster Decl. at para. 143); AT&T Comments at 53; Covad Comments at 21.

¹³⁴ WorldCom Comments at 5 (citing Verizon McLean/Wierzbicki/Webster Decl. at para. 143); AT&T Comments at 53.

¹³⁵ Verizon Reply App. A, Vol. 1, Joint Reply Declaration of Catherine Bluvol and Sameer Kumar (Operations Support Systems) at paras. 7-8 (Verizon Bluvol/Kumar Reply Decl.). Although the records inserted into the BOS BDT bill as part of the Manual Adjustment process generally cannot be validated, PWC noted that the Manual Adjustments on the BOS BDT bill were on average, less than one percent of the Current Charges on the bills with bill dates during the May 20 to June 13, 2001 time period, concurrent with the PWC study. *Id.* at para. 7. Z-Tel also states that it can load, read and audit Verizon's BOS BDT bill. See Z-Tel Aug. 17 *Ex Parte* Letter at 4 (using Monarch-brand software, "Z-Tel has been able to read and process the electronic [BOS BDT] bill received from Verizon").

that the commercial experience on this point appears to be mixed,¹³⁶ we rely on the PWC report to confirm that Verizon's BOS BDT bills appear to conform to the industry standard and can be loaded, read and audited electronically. PWC's second report also found that the absolute value of manual adjustments made to the BOS BDT bills have declined by about half following certain improvements to Verizon's BOS BDT billing systems.¹³⁷ WorldCom asserts that a reduction in the level of manual adjustments might just as likely result from Verizon employees under-reporting billing errors in Verizon's wholesale bills, which would artificially reduce the absolute value of manual adjustments.¹³⁸ We disagree with WorldCom's assertion. First, increased error seems unlikely to account for a full fifty-percent reduction in the absolute value of manual adjustments, particularly in light of the well-defined procedure that Verizon has established to correct errors and issue manual adjustments.¹³⁹ Second, the record contains no evidence of accidental or intentional under-reporting from any party. Third, Verizon's June commercial performance data is consistent with the PWC results.¹⁴⁰ Thus, despite their limited scope, the two PWC reports add to the record of Verizon's BOS BDT billing performance.

37. *Sufficiency of Evidence.* Ultimately, the competitive LECs challenging Verizon's wholesale billing performance contend that, despite improved performance in billing accuracy, Verizon's recent improvements to its BOS BDT billing system have not been sufficiently commercially tested.¹⁴¹ According to these parties, we should insist on reviewing several months

¹³⁶ Compare CompTel Comments at 6-7, and CompTel Lazzara Decl. at para. 6c, and WorldCom Comments at 2-4, with Verizon McLean/Wierzbicki/Webster Reply Decl. at para. 26. Although Verizon's BOS BDT bill departs from the standard format, Verizon states that certain departures from the standard form are allowed, provided that the issuer documents these alterations. See Verizon McLean/Wierzbicki/Webster Reply Decl. at para. 26. Verizon also states that it has documented the changes it has made to the industry-standard BOS BDT bill format. *Id.*

¹³⁷ Verizon July 3 *Ex Parte* Letter at 1.

¹³⁸ See WorldCom Lichtenberg Decl. at para. 35.

¹³⁹ See Verizon McLean/Wierzbicki/Webster Decl. at para. 138-141; Verizon McLean/Wierzbicki/Webster Reply Decl. at para. 22 and Attach. 2.

¹⁴⁰ Compare Verizon Bluvol/Kumar Decl. at Attach. 1 and Verizon July 3 *Ex Parte* Letter at Attach. 1 with Verizon Aug. 17 *Ex Parte* Letter at 5.

¹⁴¹ ASCENT Comments at 17; AT&T Comments at 51-52; CompTel Comments at 14; WorldCom Comments at 8; Z-Tel Comments at 9; WorldCom Lichtenberg Decl. at para. 16; ASCENT Reply at 9-10; AT&T Reply at 28. Many commenters claim that, because Verizon implemented software changes to correct errors in its billing system just a few days prior to filing with the Commission for Section 271 authority, neither Verizon nor the competitive LECs have had an opportunity to test, much less commercially use, the corrected billing system. CWA Comments at 4; see also ASCENT Comments at 17-18; AT&T Comments at 52; CompTel Comments at 14; WorldCom Comments at 8-9; WorldCom Lichtenberg Decl. at para. 16. WorldCom observes that, of the eighty-one problems with its billing systems that Verizon acknowledged, the fixes for thirty of these issues were not implemented prior to April 21, 2001 and thus the fixes would have been reflected in the May bill at the earliest. In addition, ten problems were not fixed until June and thus the fixes would have been reflected in the June or the July bill at the earliest. See WorldCom Comments at 8 (citing Verizon McLean/Wierzbicki/Webster Decl. at Attach. 28). Some commenters also note that Verizon's own billing expert testified before the Pennsylvania Commission that no conclusive judgments on whether the system changes were successful could be made until the completion of several billing cycles under the new procedures. See Verizon Application App. B, Tab C, Sub-Tab 26 (Pennsylvania Commission (continued....))

of commercial performance evidence to determine whether Verizon's latest modifications have sufficiently improved the manner in which Verizon bills its wholesale customers.¹⁴² As stated above, although we acknowledge that the evidentiary showing that Verizon relies on makes this issue a close call, we find the evidence minimally sufficient, especially in light of the showing it has made for billing as a whole.

38. Rather than wait for several months of commercial data, Verizon sought to bolster its limited commercial showing in two ways. First, as discussed above, Verizon engaged PWC to examine the comparability of the BOS BDT bill to the retail-formatted bill, both with respect to the amount of detail provided on the BOS BDT bill and with respect to the actual dollar amounts charged to the competitive LECs at each level of detail. Although the PWC study is not dispositive, we find that it provides valuable evidence that helps bolster Verizon's limited commercial performance data since the results from the study and the data from Verizon's commercial performance are consistent. Second, as explained above, while Verizon was implementing its software fixes, it began a manual review and balancing process for the BOS BDT bills to ensure that the BOS BDT bill balances internally and that it matches the retail-formatted bill.¹⁴³

39. Competitive LECs assert that, as a result of these manual adjustments, they can no longer audit Verizon's BOS BDT bill by tallying the detailed credits and debits on Verizon's bill, reaching a total and comparing that total with the total that Verizon provides.¹⁴⁴ While we agree that the manual adjustments prevent a precise accounting for all possible charges, we reject competitive LEC requests that we find the manual adjustment process results in an inadequately

(Continued from previous page)

en banc 271 hearing, April 25, 2001, Geller testimony, transcript at 134) (Verizon's billing expert explained that "[i]t's not unreasonable for [competitive LECs] to say 'prove it'" in response to its claim that it would fix the problems with the BOS BDT bills.); *id.* at 146 ("[w]hat we'd like to be able to do at that point in time [June 16, when the fixes are complete] is, to insure that all parties have an opportunity to review it, Verizon included, is to run several cycles, in other words additional bill cycles, and at that point in time Verizon would make its final decision as to whether or not BOS-BDT could become the official bill and replace paper [retail-formatted bills]."); *see generally* WorldCom Comments at 8; WorldCom Lichtenberg Decl. at para. 34; AT&T Comments at 52. Finally, these parties point out that two Pennsylvania commissioners dissented from the recommendation to support section 271 authorization precisely on this point, noting that "Verizon must . . . successfully complete at least two billing cycles" before section 271 authorization is warranted. *See* Pennsylvania Commission Comments App. I at 6, 10 (Dissenting Statement of Commissioner Brownell at 1; Dissenting Statement of Commissioner Fitzpatrick at 2); CompTel Comments at 15. The Department of Justice voices similar concerns. *See* Department of Justice Evaluation at 10-11.

¹⁴² *See, e.g.,* Z-Tel Comments at 9; WorldCom Comments at 8; WorldCom Lichtenberg Decl. at para. 16; ASCENT Comments at 17; CompTel Comments at 14; AT&T Comments at 51-52.

¹⁴³ Verizon McLean/Wierzbicki/Webster Decl. at para 135-141.

¹⁴⁴ *See, e.g.,* AT&T Comments at 53. In other words, the process of making "manual adjustments" on Verizon's BOS BDT bill so that it will match Verizon's retail-formatted bill causes the sum of all of the detailed charges to no longer equal the relevant sub-total or total. *See id.*; WorldCom Lichtenberg Decl. at para. 37 (citing Verizon McLean/Wierzbicki/Webster Decl. at para 146) (noting that Verizon's experts testified that the manual adjustment process "does not provide [competitive LECs] detailed information to allow recalculation of the adjustment").

accurate wholesale bill. First, the overall amounts involved in Verizon's manual adjustment process are nominal and have been consistently decreasing over time.¹⁴⁵ Second, Verizon continues to implement software fixes to its BOS BDT billing system that ultimately should eliminate the need for the manual adjustment process.¹⁴⁶ Third, despite the manual nature of this workaround process for reducing errors in Verizon's wholesale BOS BDT bills, Verizon claims, and PWC affirms, that Verizon could handle many more BOS BDT bills than the current demand of approximately 110 BOS BDT bills per month.¹⁴⁷ As a result, we do not find competitive LEC criticisms of the manual-adjustment process persuasive. Under these particular circumstances, we agree with the Pennsylvania Commission that delaying our decision on Verizon's application for several additional months to obtain new wholesale billing data is unnecessary.¹⁴⁸

40. In addition to the evidence Verizon has advanced in this record to prove the efficacy of its billing systems, Verizon has made several clarifications on the record to explain the existing procedures it follows to resolve billing disputes. These clarifications give us assurance that any remaining issues with Verizon's BOS BDT bills will be handled in a manner that reduces the burden on competitive LECs to initiate and resolve disputes. First, Verizon states that competitive LECs do not need to submit end-user-level detail to file disputes they believe to be of a systemic nature. Instead, competitive LECs only need to provide "an indication of why the [competitive LEC] is questioning the charge" and some minimal amount of information to allow Verizon to investigate the issue, such as a single billing account number.¹⁴⁹ Second, Verizon does not require competitive LECs to pay disputed amounts until the dispute is settled.¹⁵⁰ Third, if Verizon does not render a bill to a competitive LEC within the ten business days provided for in the Pennsylvania Carrier-to-Carrier guidelines, Verizon will automatically extend the payment period in which the competitive LEC can pay the bill by the number of days

¹⁴⁵ Verizon July 3 *Ex Parte* Letter at 1andAttach. 1; Verizon McLean/Wierzbicki/Webster Reply Decl. at paras. 24-25; *see also* Verizon McLean/Wierzbicki/Webster Decl. at para. 144. We also received information on Purchase Order Numbers (PONs) and Billing Telephone Numbers (BTNs) from WorldCom on the eve of making our decision. Letter from Robert C. Lopardo, Director, Federal Advocacy, WorldCom, to Magalie R. Salas, Secretary, Federal Communications Commission, CC Docket No. 01-138, at 1-3 (filed September 17, 2001) (WorldCom Sept. 17 *Ex Parte* Letter). Although WorldCom suggests problems exist with missing PONs and BTNs, we exercise our discretion to give only minimal weight due to its lateness. Moreover, based on our limited review, even assuming WorldCom's claims were valid, this information would do nothing to undermine our decision here.

¹⁴⁶ Verizon McLean/Wierzbicki/Webster Decl. at para. 142. Verizon states that it will retain the manual review and adjustment procedures "until it has confirmed that the software fixes are effective in producing balanced BOS BDTs for" competitive LECs. *Id.*

¹⁴⁷ *Id.*

¹⁴⁸ Pennsylvania Commission Reply at 3.

¹⁴⁹ Verizon McLean/Wierzbicki/Webster Reply Decl. at para. 46.

¹⁵⁰ *Id.* at para. 47.

the bill arrives late.¹⁵¹ We fully expect Verizon to closely adhere to its official policies so that its dispute-resolution procedures are clearly articulated and consistently applied to all parties.

41. Finally, while Verizon has maintained its position that its wholesale billing systems comply with checklist item 2, we take additional comfort that Verizon has responded to the concerns raised in the record by voluntarily committing to a series of undertakings aimed at ensuring continued acceptable performance and curing past deficiencies. Although we do not rely on these undertakings in finding that Verizon provides non-discriminatory access to its OSS billing functions, they give us additional confidence that Verizon will continue to deliver timely and accurate wholesale bills and endeavor to remedy past wholesale billing problems expeditiously. First, Verizon has engaged PWC again to conduct an additional test of its BOS BDT billing system without the exclusions that commenters found objectionable in the April-May study.¹⁵² Second, Verizon has made significant resources immediately available for additional competitive LEC training on using the BOS BDT bill effectively.¹⁵³ To the extent competitive LECs continue to experience problems loading and using the BOS BDT bill, Verizon also has offered to send technical teams to certain competitive LEC sites on request.¹⁵⁴ Third, Verizon has adopted a policy of proactively forgiving certain late fees and other mischarges that competitive LECs may have incurred during the period in which the BOS BDT bill underwent significant modifications.¹⁵⁵ Fourth, Verizon will work with competitive LECs that did not receive the BOS BDT bill prior to May 22, 2001 to help them analyze their bills and to provide information in a file format that could be used with a standard spreadsheet program.¹⁵⁶ Finally, Verizon has voluntarily offered to allow competitors to opt into the latest performance metrics for billing currently being developed in the New York collaborative as an alternative to the current Pennsylvania metric for wholesale billing accuracy.¹⁵⁷ These new performance

¹⁵¹ *Id.* at para. 48.

¹⁵² Letter from Gordon R. Evans, Vice President, Verizon to Magalie R. Salas, Secretary, Federal Communications Commission at 3 (Aug. 31, 2001) (Verizon Aug. 31 *Ex Parte* Letter); Letter from Clint E. Odom, Verizon, to Magalie Salas Roman, Secretary, Federal Communications Commission, at Attach. 1 (Sept. 7, 2001) (Verizon Sept. 7 *Ex Parte* Letter).

¹⁵³ Verizon Aug. 31 *Ex Parte* Letter at 3 and Attach. 3 (describing agenda of four, full-day billing workshops).

¹⁵⁴ *Id.* (offering to conduct on-site visits to those who participate in the workshops).

¹⁵⁵ *Id.* at 4.

¹⁵⁶ *Id.*

¹⁵⁷ *Id.* at 4-5. Several competitive LECs and the Department of Justice assert that the Pennsylvania metrics do not accurately reflect their commercial experience with Verizon's wholesale bills. *See, e.g.*, Department of Justice Evaluation at 13-14; ASCENT Comments at 18; Capsule Joint Comments at 20; WorldCom Comments at 14-15; Z-Tel Comments at 10; AT&T Comments Exhibit D, Joint Declaration of Joseph Bloss and E. Christopher Nurse on Behalf of AT&T Corp., at paras. 21-24 (AT&T Bloss/Nurse Decl.); AT&T Fawzi/Kirchberger Decl. at paras. 98-101; Z-Tel Aug. 17 *Ex Parte* Letter at 4. While nearly all of the billing performance metrics show nearly perfect performance, the competitive LECs allege that various structural defects, omissions, inaccuracies and miscalculations distort the picture that the current billing metrics present. *See, e.g.*, Department of Justice Evaluation at 13; ASCENT Comments at 18; Capsule Joint Comments at 20; WorldCom Comments at 14-15; Z-Tel (continued....)

measurements – for dispute-acknowledgement timeliness and dispute-resolution timeliness – represent important new steps to discourage wholesale billing errors and to ensure that any errors that occur are resolved as quickly as possible.¹⁵⁸ We are encouraged by the efforts Verizon is making to continue to improve its business-to-business relationship with competitive LECs.

42. Taken together, Verizon's proof of system performance through both commercial evidence and third-party testing as well as its record of steady improvement demonstrate that Verizon's wholesale billing systems provide competing carriers a meaningful opportunity to compete. Working in concert with the Pennsylvania Commission, we intend to monitor Verizon's post-approval compliance to ensure that Verizon does not "cease [] to meet any of the conditions required for [section 271] approval."¹⁵⁹ If Verizon's performance deteriorates, we will not hesitate to invoke our enforcement authority to ensure that Verizon continues to provide non-discriminatory access to its wholesale billing functions.¹⁶⁰

(Continued from previous page)

Comments at 10; AT&T Fawzi/Kirchberger Decl. at 98-101; Z-Tel Aug. 17 *Ex Parte* Letter at 4. Verizon itself acknowledges some of the metrics' flaws. See Verizon McLean/Wierzbicki/Webster Reply Decl. at para. 55-57 (describing errors that led Verizon to eliminate most, if not all, billing adjustments from the BI-3 billing accuracy metric and noting that "Verizon agrees that it [BI-3] is a flawed measure"); see also Verizon Application App. A, Vol. 3, Joint Declaration of Elaine M. Guerard, Julie A. Canny, and Marilyn C. DeVito (Performance Measurements) at para. 126 (Verizon Guerard/Canny/DeVito Decl.) (for several months for four billing metrics, "Verizon . . . was improperly 'netting' credits and debits, which resulted in objectively incorrect data"). Until July, moreover, the billing accuracy and timeliness metrics did not apply to Verizon's BOS BDT bills. See Letter from Julia A. Conover, Verizon Vice President and General Counsel, to James J. McNulty, Secretary, Pennsylvania Public Utilities Commission, CC Docket 01-138 (July 18, 2001) (Verizon July 18 *Ex Parte* Letter) (reporting that, consistent with the Pennsylvania Commission's June 6, 2001 directive, Verizon has updated the Pennsylvania billing metrics to make them applicable to the BOS BDT bill effective July 1, 2001); Verizon McLean/Wierzbicki/Webster Reply Decl. at para. 52. Verizon generally does not rely on its wholesale billing performance metrics to establish its affirmative case. In these circumstances, we do not rely on the billing accuracy metrics in considering Verizon's section 271 showing.

¹⁵⁸ Verizon Aug. 31 *Ex Parte* at 4-5 and Attach. 2. The billing metrics that New York is developing are BI-3-03 (Percent Competitive LEC Billing Claims Acknowledged Within Two Business Days) and BI-3-04 (Percent Competitive LEC Billing Claims Resolved Within 28 Calendar Days after Acknowledgement). These metrics are designed to measure the timeliness with which Verizon acknowledges and resolves competitive LEC billing adjustment claims. According to its recent announcement, Verizon will allow competitive LECs to replace the single BI-3 metric with two alternative metrics, but will split the Pennsylvania performance assurance plan remedies for the current BI-3 metric between the two new alternative metrics. Pennsylvania currently imposes the following remedies for poor billing performance: \$50,000 per competitive LEC per metric for violations up to thirty days; \$75,000 per competitive LEC per metric for violations up to sixty days; and 100,000 per competitive LEC per metric for violations up to ninety days. See Pennsylvania Commission Comments at 103. For each of the new alternative metrics to the current BI-3, therefore, Verizon would pay \$25,000 per competitive LEC per metric for violations up to thirty days; \$37,500 per competitive LEC per metric for violations up to sixty days; and \$50,000 per competitive LEC per metric for violations up to ninety days. See Verizon Aug. 31 *Ex Parte* Letter, Attach. 2 at 3.

¹⁵⁹ 47 U.S.C. § 271(d)(6)(A).

¹⁶⁰ See, e.g., *Bell Atlantic-New York Authorization under Section 271 of the Communications Act to Provide In-Region, InterLATA Service in the State of New York*, Order, 15 FCC Rcd 5413 (2000) (announcing a \$3 million payment to the United States Treasury and other terms of a Consent Decree entered with Bell Atlantic following an (continued....)

(ii) Billing Notifiers

43. We find that Verizon provides Billing Completion Notifiers (BCNs) to its competitors in a non-discriminatory manner. BCNs inform competitors that all provisioning and billing activities necessary to migrate an end user from one carrier to another are complete and thus the competitor can begin to bill the customer for service.¹⁶¹ Premature, delayed or missing BCNs can cause competitors to double-bill, fail to bill or lose their customers.¹⁶² As a preliminary matter, we note that the Pennsylvania Commission currently does not require Verizon to track the timeliness and accuracy of BCNs.¹⁶³ However, the absence of a particular performance metric is not, in and of itself, fatal to the ability of the applicant to demonstrate checklist compliance. Instead, we rely on a variety of performance measurements to examine a BOCs compliance with the competitive checklist.

44. In this case, Verizon has committed to implement a BCN timeliness metric in Pennsylvania in the future¹⁶⁴ and, for the purposes of this application, has provided BCN timeliness information in Pennsylvania based upon the New York BCN metric.¹⁶⁵ The New York BCN metric measures the time elapsed from the moment that Verizon's Service Order Processor (SOP) records a service order as complete to the moment Verizon's gateway system generates a BCN.¹⁶⁶ According to Verizon, the SOP does not transmit information to the gateway system instantaneously.¹⁶⁷ In New York, this cycle generally ranges from two to three days.¹⁶⁸ In Pennsylvania, however, this cycle generally ranges from three to four days.¹⁶⁹ Accordingly, while the New York BCN timeliness metric uses a benchmark of three business days, Verizon

(Continued from previous page) _____
investigation into lost or mishandled orders for electronically submitted unbundled network element orders in New York).

¹⁶¹ See *Bell Atlantic New York Order*, 15 FCC Rcd at 4052-53, para. 187; see also CompTel Comments, Declaration of Elliot M. Goldberg on Behalf of the Competitive Telecommunications Association at para. 4 (CompTel Goldberg Decl.).

¹⁶² See *Bell Atlantic New York Order*, 15 FCC Rcd at 4052-53, para. 187. These types of BCN errors can also cause a competitive LEC to continue to purchase wholesale services from Verizon to serve a customer whose service should have already been terminated due to either non-payment or migration back to the incumbent LEC. See, e.g., CompTel Comments at 18; CompTel Goldberg Decl. at para. 7.

¹⁶³ AT&T Bloss/Nurse Decl. at para. 24; WorldCom Kinard Decl. at para. 11.

¹⁶⁴ Verizon Reply at 60.

¹⁶⁵ Verizon McLean/Wierzbicki/Webster Reply Decl. at para. 74.

¹⁶⁶ Verizon McLean/Wierzbicki/Webster Decl. at paras. 102-105.

¹⁶⁷ *Id.* at paras. 104-105.

¹⁶⁸ *Id.* at para. 104. During this time, Verizon cannot process updates to the billing system for held accounts for either wholesale or retail customers. *Id.*

¹⁶⁹ *Id.*

uses a benchmark of four business days to demonstrate that it provides BCNs to competitors in a non-discriminatory manner for purposes of this application.¹⁷⁰ Using the four-day benchmark to account for Pennsylvania's different billing cycles, Verizon reports 98.1% and 98.55% performance levels for May and June 2001, respectively.¹⁷¹ Significantly, it appears that at least one of the competitive LECs that alleged untimely and inaccurate BCNs in the past now acknowledges that Verizon has demonstrated significantly improved performance in recent months.¹⁷² For purposes of this application, therefore, we find that Verizon's reliance on the four-day benchmark is reasonable and that Verizon delivers BCNs in a timely manner.

(iii) Access to Loop Qualification Information

45. In the *UNE Remand Order*, the Commission concluded that all incumbent LECs must provide nondiscriminatory access to the same loop information that is available to the incumbent.¹⁷³ We find that Verizon provides competitive LECs with access to loop qualification information in a manner consistent with the requirements of the *UNE Remand Order*. We note that the Pennsylvania Commission also found that Verizon provides nondiscriminatory access to

¹⁷⁰ While some competitive LECs cite data purporting to show Verizon's BCNs are inaccurate and arrive late, *see, e.g.,* AT&T Comments at 49; AT&T Fawzi/Kirchberger Decl. at para. 46; WorldCom Comments at 26; CompTel Comments at 19; CompTel Goldberg Decl. at paras. 4-16 and Attach. I; Capsule Joint Comments at 18-19, this data generally relies on a three-day standard or on date and time stamps that differ from those stamps actually used in the design and operation of Verizon's OSS. *See, e.g.,* AT&T Fawzi/Kirchberger Decl. at para. 46 (relying on a three-day standard, rather than the more appropriate four-day standard to determine timeliness); CompTel Comments at 19 (calculating BCN timeliness with date and time stamps that differ from those stamps actually used in the design and operation of Verizon's OSS); *see also* Verizon Reply Comments at 44-45; Verizon McLean/Wierzbicki/Webster Reply Decl. at para. 77. While we recognize that Verizon's February-March performance falls short of the goal of moving 95 percent of relevant data from SOP to BCN within four days, Verizon provided more timely BCN performance in January and April and, after system modifications, still better performance in May and June. *See* Verizon Reply Comments at 45; Verizon McLean/Wierzbicki/Webster Decl. at para. 106 and Attach. 24; Verizon McLean/Wierzbicki/Webster Reply Decl. at para. 74-77.

¹⁷¹ Verizon Reply at 45; Verizon McLean/Wierzbicki/Webster Decl. at para. 106 and Attach. 24; Verizon McLean/Wierzbicki/Webster Reply Decl. at para. 74-77.

¹⁷² WorldCom Lichtenberg Decl. at paras. 60-62 ("As of early February, WorldCom calculated that it had submitted trouble tickets with missing notifiers for nearly a fifth of the [PONs] it had transmitted." Recent fixes have improved BCN performance, but "WorldCom has no confidence that the current improvement will be permanent."). Although WorldCom asserts that Verizon has not performed a root-cause analysis, Verizon states that it provides competitive LECs with a "root-cause" analysis of BCN problems that have occurred and provides competitive LECs with weekly "root-cause" reports for any PONs reported on missing-notifier trouble tickets that are not resolved by resending the requested notifier through Verizon's OSS. *See* Verizon McLean/Wierzbicki/Webster Reply Decl. at para. 75. We find Verizon's response persuasive.

¹⁷³ The Commission's rules require Verizon to provide competitors all available information in its databases or internal records, in the same time intervals that it is available to any incumbent LEC personnel, regardless of whether Verizon's retail arm or advanced services affiliate has access to such information. *See Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, Third Report and Order, 15 FCC Rcd 3696, 3885-3886, paras. 427-431 (*UNE Remand Order*).

loop qualification information.¹⁷⁴ In our *Verizon Massachusetts Order*, the Commission concluded that Verizon's interim process for access to loop qualification information, coupled with Verizon's work in the formal change management process to implement enhanced permanent loop qualification processes, was sufficient for checklist compliance.¹⁷⁵ In addition, we are encouraged by Verizon's indication, in the instant application, that it is on track to provide access to loop qualification information through the permanent fix described in its Massachusetts application by October 2001.¹⁷⁶ After October 2001, therefore, in future section 271 applications, we would expect to review Verizon's permanent OSS process for access to loop qualification information.

46. POCA complains that Verizon has not yet included in its loop qualification database information on all loops in its network inventory.¹⁷⁷ We note that under our current rules Verizon does not have an affirmative duty to create additional loop qualification information but rather an obligation to share with requesting carriers all such information that exists anywhere in Verizon's back office and can be accessed by any of Verizon's personnel.¹⁷⁸ We do not find any evidence in the record to support allegations that Verizon is not in compliance with our rules.

47. We find unpersuasive Covad's assertion that a recent Arthur Anderson audit of Verizon found evidence that Verizon possesses loop make-up information that it only makes available to itself.¹⁷⁹ As Verizon explains, this audit reviewed its provision of loop qualification information prior to its implementation of the interim process approved by the Commission in the *Verizon Massachusetts Order*.¹⁸⁰ The record contains no evidence to suggest that Verizon's current OSS process for access to loop qualification information have not addressed any section

¹⁷⁴ See Verizon Reply at 22 (citing *Verizon Massachusetts Order*, 16 FCC Rcd 8988 at 9021, para. 60); Pennsylvania Commission Comments at 134.

¹⁷⁵ See *Verizon Massachusetts Order*, 16 FCC Rcd at 9021-9022, paras. 61-62, 9024-9025, para. 67. Covad raises issues regarding Verizon's interim process similar to those it raised in Massachusetts. See Covad Comments at 17. We reject Covad's arguments for the same reasons expressed in our *Verizon Massachusetts Order*.

¹⁷⁶ See Verizon McLean/Wierzbicki/Webster Reply Decl. at para. 63. Verizon states that this permanent method of access to loop qualification will be made available throughout the Verizon territory. *Id.*

¹⁷⁷ POCA Comments at 7-9. POCA asserts that Verizon has only included information in its loop qualification database for those central offices where competitive LECs have collocation arrangements. See POCA Comments at 11-12.

¹⁷⁸ See *UNE Remand Order* at 3886, para. 430. As we explained in the *UNE Remand Order*, to the extent an incumbent has not compiled loop information for itself, it is not required to "conduct a plant inventory and construct a database on behalf of requesting carriers." *Id.* at 3886, para. 429. Instead, the incumbent is obligated to provide requesting competitors with nondiscriminatory access to loop information within the same time frame whether it is accessed manually or electronically. *Id.*

¹⁷⁹ See Covad Comments at 16-17.

¹⁸⁰ See Verizon McLean/Wierzbicki/Webster Reply Decl. at para. 64.

271 concerns raised by the audit Covad cites. Moreover, we note that audit findings do not contain legal determinations and, accordingly, find that they do not necessarily warrant a finding of checklist noncompliance.

(iv) Flow-Through

48. Verizon provides adequate electronic processing of orders. Flow-through measures the percentage of orders that pass through an incumbents' ordering systems without the need for manual intervention. Flow-through rates are not an end in themselves, but rather a tool used to indicate a wide range of possible deficiencies in a BOC's OSS that may deny an efficient competitor a meaningful opportunity to compete in the local market.¹⁸¹ Contrary to the claims of some commenters,¹⁸² we do not specifically require Verizon to provide data on its achieved flow-through rate¹⁸³ to determine that Verizon's OSS are capable of offering high flow-through.¹⁸⁴

49. Some parties complain that Verizon's flow-through rates for Pennsylvania are low, but there is no further evidence that there are OSS deficiencies related to an insufficient level of flow-through in OSS access for competitive LECs in the state.¹⁸⁵ In Pennsylvania, Verizon measures "total" and "simple" flow through.¹⁸⁶ Although Verizon's commercial data show relatively low average total flow-through rates – ranging from about 54 to 66.5 percent from February 2001 through June 2001¹⁸⁷ – we agree with the Pennsylvania Commission and conclude that Verizon's OSS is capable of flowing through competing carriers' orders in substantially the same time and manner as Verizon's own orders.¹⁸⁸ We reach this conclusion for several reasons. First, since April 2001, Verizon has demonstrated a steady improvement in its flow-through performance.¹⁸⁹ Second, Verizon's accuracy in processing orders is on par with the

¹⁸¹ See, e.g., *Verizon Massachusetts Order*, 16 FCC Rcd at 9030, para. 77.

¹⁸² See AT&T Bloss/Nurse Decl. at para. 25; see also WorldCom Kinard Decl. at paras. 9, 20, 27.

¹⁸³ "Achieved flow through" measures the percentage of orders designed to flow through that do, in fact, flow through.

¹⁸⁴ *Verizon Massachusetts Order*, 16 FCC Rcd at 9032, para. 80 ("We do not specifically need . . . achieved flow-through figures in order to determine that Verizon's OSS are capable of offering high flow-through.").

¹⁸⁵ Some competitive LECs assert that Verizon's flow-through performance is inadequate. See, e.g., AT&T Comments at 46-47; AT&T Fawzi/Kirchberger Decl. at paras. 33-45; AT&T, Bloss/Nurse Decl. at para. 25-26; AT&T Reply Comments at 32-35; Capsule Joint Comments at 9, 14-15; Covad at 20; WorldCom at 27-28; WorldCom, Lichtenberg Decl. at para. 64; WorldCom, Kinard Decl. at para. 9; PAOCA at 15-24.

¹⁸⁶ "Total flow through" measures the percentage of all orders (both those that are designed to flow through and those that are not designed to flow through) that flow through. "Simple flow through" measures the percentage of all electronically submitted basic POTS service orders that flow through.

¹⁸⁷ See OR 5-01 (Percent Flow-Through Total).

¹⁸⁸ See Pennsylvania Commission Comments at 87.

¹⁸⁹ *Verizon McLean/Wierzbicki/Webster Reply Decl.* at para. 67 and Attach. 11.

performance levels that we found acceptable in the New York and Massachusetts section 271 applications.¹⁹⁰ Third, Verizon's carrier-specific performance reports show that some competing carriers in Pennsylvania attain much higher flow-through rates than others.¹⁹¹ Because all competing carriers interface with the same Verizon system, we find, on this record, that it would not be appropriate to attribute this wide range of results entirely to Verizon.¹⁹² Finally, our conclusion that Verizon's systems are capable of achieving high overall levels of order flow-through is reinforced by KPMG's testing, which found that Verizon satisfied all test criteria for flow-through performance.¹⁹³ In these circumstances, we do not find competitive LEC arguments concerning flow-through rates persuasive and conclude that Verizon provides sufficient flow-through of orders to meet checklist item 2.¹⁹⁴

(v) Other OSS Issues

50. Commercial data demonstrates that Verizon electronic interfaces support a robust volume of commercial activity in Pennsylvania.¹⁹⁵ Nevertheless, some commenters allege that Verizon's Electronic Data Interchange (EDI) interface has serious shortcomings¹⁹⁶ and others claim to have experienced problems with Verizon's Web-based Graphical User Interface (Web GUI).¹⁹⁷ According to AT&T, for example, KPMG tested the wrong version of Verizon's EDI interface.¹⁹⁸ AT&T adds that Verizon's pre-ordering metrics fail to capture long response times

¹⁹⁰ Compare Verizon Reply App. A, Vol. 2, Joint Reply Declaration of Elaine M. Guerard, Julie A. Canny and Marilyn C. DeVito (Performance Measurements) at Attach. 1 (Verizon Guerard/Canny/DeVito Reply Decl.) (service order accuracy scores for OR-6-01 (percent accuracy orders) and OR-6-02 (percent accuracy opportunities) ranging from 85 to 99 percent), with *Bell Atlantic New York Order*, 15 FCC Rcd at 4044, para. 174 and n.548 (adjusted service order accuracy score of 87 percent), and *Verizon Massachusetts Order*, 16 FCC Rcd at 9032, para. 81 and n.251 (service order accuracy scores ranging from 82 to 99 percent). See generally Verizon McLean/Wierzbicki/Webster Reply Decl. at para. 67.

¹⁹¹ Verizon McLean/Wierzbicki/Webster Decl. at para. 77.

¹⁹² See *Verizon Massachusetts Order*, 16 FCC Rcd at 9030, para. 78.

¹⁹³ KPMG Final Report at 307-308 (reporting satisfactory results for the TVV-3-1, TVV-3-2, TVV-3-3, TVV-3-4 and TVV-3-5 tests, which evaluate various aspects of Verizon's systems and processes that affect flow-through performance); Verizon McLean/Wierzbicki/Webster Decl. at para. 75; see also Verizon McLean/Wierzbicki/Webster Reply Decl. at paras. 59-62.

¹⁹⁴ See, e.g., WorldCom Comments at 28; AT&T Comments at 47-48.

¹⁹⁵ Verizon McLean/Wierzbicki/Webster Reply Decl. at para. 58.

¹⁹⁶ AT&T Comments at 45-46; Covad Comments at 19. EDI is an asynchronous ordering interface that competitive LECs use to order services from incumbent LECs. EDI is well suited for large-volume transactions.

¹⁹⁷ Capsule Joint Comments at 12-13; AT&T Bloss/Nurse Decl. at para. 21. Web GUI is a synchronous ordering interface that competitive LECs use to order services from incumbent LECs. Web GUI is well suited for small-volume transactions.

¹⁹⁸ AT&T Comments at 45; AT&T Fawzi/Kirchberger Decl. at paras. 20-21.